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DISEASES OF THE CAT.

BY HENRY GRAY, M.R.C.V.S.

Diseases of the Skin.

THE cat is very fortunately free from many of the skin complaints that affect the dog. This is in consequence of the former animal leading a much more natural life, and the result of the habit of cleaning its pelage, which is so characteristic when it is in health. Nevertheless, domestication and improper surroundings—the curse of health—demand a few victims every now and again, and hence the much-maligned cat is not exempt from this bane.

The diseases are either *contagious* and conveyable from one cat to another, or they are *simple* and not spread by contact. The contagious complaints are very important and serious in their effect, and are due to a parasite either belonging to the animal or vegetable kingdom.

The cat has only one skin disease due to an animal parasite—*Sarcoptes minor*, VAR., *cati* vel *notodra*, or the mite causing *Sarcoptic mange*, which is a contagious disease spreading from cat to cat, and sometimes, but rarely, man, and some other animals.

It generally attacks ill-fed, neglected and badly-housed cats which are allowed to stray, and is seen chiefly in the autumn when the inhabitants of large towns, having left home in the months of July and August forgetting their pets, left behind, find on their return home in September and October their once lovely pets the subject of this loathsome and dreadful disease that leads them, if they have any real love for their cats, to seek advice.

Mange.

It frequently occurs as an epizootic and where no attention is given to the cats affected it is very fatal. It seems that the

smaller the parasite the greater the injury it causes. Wedelius, the first authority to describe the disease, wrote upon it in 1672 occurring as an epizootic raging for two years. It extended for some miles in Westphalia, where it killed nearly all the cats. Girtanner also encountered it and published accounts of it. In 1811, Rigot saw outbreaks of it in the environs of Château-Goutier, Mayenne, which lasted nearly four years; and in 1827, Sajous, a veterinary surgeon at Tarbes, presented an article to the Central Agricultural Society, on an outbreak of mange which had existed for some years, and had killed all the cats in entire villages. In 1843 and 1846 it was seen as an epizootic in Offenburg, Grand Duchy of Baden. But Gohier in 1813 was the first writer who speaks of having seen the actual parasite and Hering was the first to describe it in 1838 (Neuman). This parasite is easy to find, and according to Mégnin, ex-military veterinary surgeon, Laureate of the French Institute and the able Editor of the *L'Eleveur*, who has made the study of parasites of animals his own, it does not excavate a subcutaneous gallery like the mange insects of other animals but makes a simple nest that appears as a minnte eminence. The larvæ, nymphæ, and males wander in the midst of the crusts.

The adult or mature insect has an almost circular body. When viewed under the microscope the limbs seem to be under the body a good deal and its anus is on its back, and from this fact it takes the name, given by Bourguignon, of Sarcoptes nætodra. It has eight legs in the adult and six in the larval stage. In the female the hind legs are provided at the extremities with bristles only, but in the males the central pair of hind legs are provided with suckers, yet the outer pair have bristles. It has been said by able authorities that the dog can contract it (at least experimentally), from the cat, and that mange is caused, although the ordinary mange of the dog is due to a parasite of its own. It can also be conveyed to the rat, man, horse, and ox.

Whatever part of the body it first touches, it always travels to the head to do its injurious work. At first small reddish pimples, no larger than a pin's head or a turnip seed, appear; these exude a yellowish fluid which dries and forms crusts. The animal scratches, the hair falls off, numerous other scales appear, and become thicker and thicker until the whole head and ears become encased in a cast of dirty yellowish crusts. The crusts may be absent in young kittens or young cats, but slightly adherent branny scales are seen instead.

After a time the disease spreads to the neck and shoulders, elbows, and thighs, or even to the whole of the body. In young kittens or young cats the complaint is more likely to spread to various parts of the body, but in older animals it is generally confined to the head, or head and neck, but may, as in young cats, spread to the other parts or the whole of the body. The skin of the head and neck, or other parts of the body if affected, becomes wrinkled after some time. The nostrils and eyes may be blocked up by the thickened crusts so that the animal can see or breathe through the nostrils only with difficulty. The cat hides or strays away, it mopes and seems sad, it becomes thin and indifferent, and finally succumbs to exhaustion or some concurrent disease. Ringworm may be associated with it, and a cat or kitten may be affected with mange, ringworm, and with ear parasites or ear mange at the same time. I have seen many examples of this.

Diarrhœa, discharge from the eyes and nose are sometimes present, but internal parasites or worms, chiefly the elliptical tapeworm (*tænia elliptica*) are nearly always associated with mange.

It quickly kills within five or six weeks if no treatment and attention are bestowed on the cat, especially if young. But it may last for months. Cold weather seems to retard its progress only to renew its energy in the next spring. It spreads slowly on well-cared-for cats. It may last for years on those that are treated partially.

The *treatment* consists in destroying the parasite and nursing the cat. If the disease is widespread on the body, a lotion which must not contain poison should be applied in preference to an ointment. It must kill the parasite and not injure the patient. The following is a safe one :

Sulphide of potassium	...	...			½ ounce
Glycerin ...	...	...	...	...	1 ounce
Rose water	...	...	...	add to	½ pint

To be applied to a small portion of the affected parts by means of a piece of lint, one spot to-day, another portion to-morrow, and yet another part the next day, and so on. Too large a surface must not be wetted at once, or else the cat will catch cold and probably succumb. She must be kept warm, and should have nutritious and strengthening food. If a poisonous drug is applied to the skin, puss, in cleaning herself, which no doubt she will if she is not too ill, will swallow some of it, and it will very likely make her ill

even if it doesn't kill. Balsam of peru, storax, rancid cod-liver oil, impure vaseline, carbolic and the tarry compounds, iodine and mercury, must not be used if you want to cure and not kill the patient. Even the ancient sulphur ointment will settle her if too large a surface is dressed at one time, especially during cold or wet weather. Baths frequently kill cats.

When a small spot or part of the head is affected, an ointment will be useful. The following is recommended:

Precipitated sulphur	2 drachms
Soda bicarbonate	2 drachms
Fresh and pure lard	1 ounce

or this liniment:

Precipitated sulphur	1 ounce
Castor oil	4 ounces

or this:

Best soft soap	½ ounce
Rectified spirit	2 ounces
Precipitated sulphur	½ ounce
Rose water ... ...add to	6 ounces

The same rule as that for the application of the lotion is to be observed in using either of the above. A dose of worm medicine now and again may be useful to get rid of the worms, which are so frequently present in cases of mange.

The baskets, bedding, etc., belonging to or used by the mangy feline must be burnt or boiled, and the haunts must be sprinkled with oil of turpentine and carbolic lotion, or such-like parasite-killing agent, so as to prevent re-infection, or probably infection to the new-coming cat if the old one dies either from natural or wilful causes.

The cat, although she may be the host of the *follicle mite* (*demodex follicularum*) which causes an almost incurable, or if not incurable, at least an expensive disease in the dog, does not seem to suffer from its presence, at least, no disease in the cat is ascribed to it, though Friedberger and Fröhner say that it causes similar symptoms to those witnessed in the dog affected with its presence. Of the *vegetable parasites* that affect the skin of the cat, two are known—the *Trichophyton tonsurans* which causes the so-called grey ringworm; and the *Achorion Schönleinii*, the *Tinea favosa* or yellow ringworm. They are both fungi, and both are communicable from cat to

cat, and from cat to man, and other animals domesticated and wild, including rats and mice and *vice versâ*.

Tinea tonsurans, or grey ringworm, is not a common affection of the cat. The parasite (*Trichophyton tonsurans*) attacks the hairs, and very few of its elements are found in the crusts or patches of ringworm. It consists of *tubes*, or *filaments of the mycelium*, and the *spores* or *conidia*. If a few drops of chloroform are dropped on the patches, the affected hairs, after the drug has become evaporated, will take a white or primrose-yellow tint. On examination of the diseased hairs by means of a good magnifying glass, they will be found surrounded at the roots with a whitish material. The hairs are much altered and broken, and their ends will be found split up and frayed like a brush.

In the cat there will be noticed circular bald patches covered with an abundance of scales. These are seen on the head and limbs and round the eyelids and mouth, but also on other parts of the body. They may run into one another and form large patches. There may be itchiness and scratching. In this latter case the crusts may be covered with blood, and and it may resemble eczema.

The *treatment* is the same as that for mange. Common salt and lard form a useful and safe ointment. Care must be taken that school children do not contract the disease, and to prevent any risk being run, the cat so affected must either be sent to an infirmary or put out of existence. This is a rebellious disease; if the beard of man becomes affected, it forms the so-called tinea sycosis. But any part of his body may be attacked.

Tinea favosa, or *favus*, or yellow-ringworm is a commoner contagious skin disease in the cat than grey ringworm. It is due to a vegetable parasite (*Achorion Schönleinii*), which causes at first yellow coloured crusts, which are arranged as cup-shaped masses which disturb the hairs so that they are shed. These cup-shaped masses resemble a honeycomb in appearance, hence its name honeycomb ringworm or favus. The sulphur yellow colour after a time changes to a dirty yellow or grey. The patches may be circular or zig-zag, and raised above the skin, but the centre is depressed so as to give them a cup-shaped appearance. They vary in size from a pin's head to a shilling or larger. They may become confluent so that the circular appearance is no longer present. The hairs are stiff and lustreless, and can easily be pulled out. They seem to grow in the centre of the "cups." After a time the parasite loosens the hair in the follicle so

that it is shed. There is very little itchiness, and the health is not much affected unless a large surface or the whole of the skin of the head becomes affected.

It prefers to affect the root of the claws, or the belly sides of the chest, elbows, head, base of ears, nose, and then spreads all over the body. When it attacks the head it ensheaths the face and scalp as if clay had been moulded to the parts so that the eyes become hidden from view. It may be associated with mange and parasites in the ear. The crusts outside the ear may be a quarter of an inch thick. The cat hides itself or strays away, it moans or whines, crouches on all fours and seems utterly miserable. It gives off an abominable odour which resembles mouldy decaying wood in a dark damp building or a mousy smell, and if not put out of its misery death will supervene. It affects old cats as well as young, and it is said that they contract it from mice and rats which become affected behind the ears. A week or a fortnight may elapse before any symptom appears after being exposed to the contagion. Young animals are easily infected but older ones may resist it. It is transmissible to *children* and man, and from man to the cat and other animals.

The *treatment* to be adopted is the same as for grey-worm. It is possible for an animal to recover from this complaint without any treatment being applied, but oftener under these circumstances death would result from exhaustion or some concurrent complaint.

Ulceration of the skin at the root of the tail is very troublesome as the animal keeps on biting the parts and small abscesses form. It seems to result from eczema which causes intense itching so that the cat uses its teeth to the skin. It may persist for a long time. *Treatment* consists in keeping the part clean and painting it with a strong solution of nitrate of silver, chloride of zinc or copper sulphate. If there are small abscesses these must be opened and painted with tincture of iodine.

Aperients, alteratives, and a vermifuge may be necessary.

Eczema is a non-contagious inflammation of the skin characterised by pimples and vesicles, which may burst and leave a sore surface from which a sticky serous fluid may exude, this stiffens as it dries and forms scales or crusts covering red patches of ulcerated skin. It is always attended with much itching, and usually runs a chronic course.

It generally affects (in the cat) the back, loins, root of tail, belly, down back of the thighs, although any part of the body may be attacked. The animal bites the parts, the skin

becomes red, pimples the size of a pin's head to a millet seed or small pea appear; these after a time burst, and a fluid issues from them and dries. If the itchiness is intense the animal bites itself so that the skin becomes ulcerated; the hair falls off, leaving bare patches. There may be constant licking of the parts, and the irritation sometimes causes epileptiform seizures. In suckling cats after sudden deprivation of their offspring, an eczematous eruption may appear on the belly, back, or loins, but generally it is not intense. In the *castrated* male cat it occurs very frequently, and it recurs every now and again, especially during spring and autumn. In him it is a troublesome affection, and is seen in the short-coated as well as in the long-haired varieties.

The causes are a sedentary, unnatural life, and a good food supply. Hot weather, especially when accompanied by wet, predisposes him to it, but it is seen also in the cold months of the year. Worms may act as a predisposing cause.

Treatment is very essential in this disease, and if properly applied by the attendant it may be speedily checked. Allow the animal as much liberty as possible, give plenty of grass and freshly-boiled vegetables, even asparagus. Raw meat, raw fish, birds, bullock's liver and lights, afford a good dietary. But rice-pudding, milk, and oatmeal should not be given.

If it be suspected that worms are present, an efficient medicine, as recommended in the article (which see) on worms, should be given. An aperient will be beneficial every third or fourth morning if the cat be a strong one. The following is a good pill:

Calomel	1 grain
Aloes Barbadoes	5 „

Where an objection is raised against a pill, the powder, as this:

Grey powder	6 grains
Calomel	3 „

Mix and make six powders. One to be given every morning for a week. Then give the following:

Sulphur	18 grains
Bitartrate of potassium	6 „

Mix and make six powders. One every morning.

If the disease is spread over a wide area, the hair must be cut off close to the skin and the following ointment well and gently rubbed on the affected parts once every day:

Zinc ointment	} eq. parts.
Sulphur ointment	

Or the following lotion:

Precipitated sulphur	...	...	...	$\frac{1}{2}$	ounce
Glycerin	...	...	...	2	ounces
Lime water	...	...	...	4	„
Rose water	...	...	... add to	8	„

If after a time the skin still appears red, use only zinc ointment applied twice a day, and give the following *granules*, one morning and night after food:—Arsenic bromide or iodide $\frac{1}{100}$th grain, or potassium arseniate $\frac{1}{100}$th grain. If there is any debility, cod-liver oil should be given during the cold months of the year, and a granule each of quinine arseniate $\frac{1}{100}$th grain, phosphate of iron, one grain morning and evening instead of the above.

Sudation or perspiration is seen in the cat sometimes. It may be associated with tuberculosis, kidney disease, or indigestion, but may occur without any of these or other appreciable complaints.

The hair, chiefly on the back, is bedewed with perspiration, it is moist, the appetite is capricious, and the expression of the face has sadness in it. The mucous membranes are anæmic. Emaciation is progressive, and if not treated death from exhaustion takes place. Is the cause of this obscure complaint in the cat due to some disturbance of the nervous system? If the sciatic nerve is divided after an injection of pilocarpine, perspiration of the pads follows.

If worms are suspected, a good dose of worm medicine should be given (see article on worms). Fresh meat, raw fish, cod-liver oil, grass, fresh vegetables, plenty of exercise are to be given. The hair should be clipped off the part affected, to prevent it from falling and leaving the skin bare. The following *granules* are to be given morning and evening after food:—Zinc phosphide $\frac{1}{10}$th grain, strychnine hypophosphate $\frac{1}{100}$th grain.

Erysipelas, or inflammation of the true skin and epidermis, is sometimes seen. It is usually due to injuries and neglected skin disease, and it frequently attacks the limbs.

The symptoms are lameness, pain, heat, redness, and after a time a blue appearance of the skin, which has a doughy feel to the touch and pits on pressure. This swollen condition spreads from the pad up the limb towards the body. Matter may ooze, and the skin sloughs, leaving bare patches. In this condition food is refused, there are vomiting and diarrhœa, the wound is fœtid, and death follows from exhaustion brought about by the absorption of poisonous material from

the wound. Although it very commonly starts from the pad, it may sometimes originate high up the limb.

The *treatment* consists in giving a *granule* each of extract of aconite $\frac{1}{200}$ grain, of iron phosphate 1 grain, and of quinine arseniate $\frac{1}{100}$ grain, morning, noon, and night. The swollen condition of the limb should be fomented with hot water containing an infusion of poppy capsules and camomile flowers two or three times or more a day, and applying glycerin of belladonna during the intervals. Care must be taken not to let the cat lick this off, else she will become poisoned. If there is a wound, and matter containing pus and blood issues from it, a solution of iodine or chloride of zinc should be injected twice a day. A very good plan is to immerse the limb, by placing it in a basin, containing a hot saturated solution of boracic acid, two or three times a day. This is safe and simple.

Alopecia or baldness, or total loss of hair of a part or the whole of the body, is occasionally seen in the cat. It appears to be due to debility or anæmia after an illness or parturition. The whole of the coat or a part of it, if stroked with the hand, will come off, leaving the skin as bare as one's hand. This bare patch or surface is shiny. It appears in long-coated cats which are anæmic, or in those that have not had proper food and care.

Treatment.—Feed the animal well, and keep it in out of the rain. Give it raw meat or fish and cod liver oil. Tonics, as iron, arsenic and quinine, are useful, and a weak solution of cantharides is beneficial when applied carefully to the skin. The following is the formula I recommend:

Tincture of cantharides	2 drachms
Liniment of psoralea	2 ounces
Rectified spirit	1 ounce
Rose water	add to 6 ounces

Applied once a day to the bare parts by means of a piece of lint.

Matting of the hair (*Plica polonica*) is very commonly seen in the cat, especially the Persian; but it may also be seen in cross-breeds and totally smooth haired varieties. Some seasons it seems to rage as an epizöotic, and this (1897) spring, nearly every Persian I encountered was so affected. It is due to want of attention to the pelage, or it may be due to the animal not cleaning its fur during an illness or the moulting season.

Large tufts, which are hard and knotted, appear on various parts of the body, but commonly under the belly. These

knots are so hard that it is sometimes difficult to cut through them from the skin outwards. If these are in great numbers, the cat has a miserable expression, no doubt due to the uncomfortable feeling of its fur.

The *treatment* consists of combing through the mats or tufts with a very sharp penknife from the skin outwards in the same direction as the hairs should be. After doing this once or twice or more through every bundle it is easy to remove the superfluous or dead hair. After getting rid of these mats the pelage should be combed daily with an ordinary comb and then brushed well and continuously. A little best olive oil should be smeared on the hands and then rubbed on the coat and the following tonic pill given :—

Iron sulphate	½ grain
Carbonate of potash	½ „
Extract of gentian	2 grains

One to be given morning and evening after food.

Summary of the Treatment of Skin Diseases.—We must take into consideration, in treating the skin diseases of the cat, the natural habits of the animal. When in health, no other animal bestows so much attention to its coat as does this animal ; even if the least dirt or any injurious material soils it, it is instantly removed by the animal licking the fur. A cat has been known to be poisoned by licking lead paint attached to her pads, which she obtained by walking on floors or woodwork freshly painted. From the above observations it will be gathered that any material not detrimental to the skin may be licked off and prove injurious or fatal to the cat. For this reason, no ointments or lotions containing balsam of peru, storax, carbolic acid, tarry compounds, iodine, rancid cod-liver oil should be applied. Again, the skin plays an important part in the economy of the system, and if any greasy or sticky ointment or liniment is applied to too great a surface at one time the animal may become poisoned by the skin not doing its amount of work of eliminating injurious or effete material from the body, and death may follow from "cutaneous" asphyxia, or skin suffocation. Therefore it is better to apply medicaments piecemeal—a portion to-day, another portion to-morrow, and yet another portion next day, until the parts it is intended to treat are covered. If extensive patches of skin are affected the hair should be cut off. This will entail less use of material, less liability to accident, and the remedy is more effectually applied. Washing the animal may be necessary, but it is not advisable to carry this out if

other means are available, because the cat is naturally repugnant to water, and death frequently ensues from some disease contracted through the washing. Ointments or liniments are preferable to lotions, which evaporate too quickly and leave the surface dry. On the other hand, greasy preparations unless very freshly prepared are liable to turn rancid, and consequently become a source of danger. Rather more skill than labour is necessary in the majority of cases of the treatment of diseases of the skin, and drugs or remedies are like surgical instruments—they require a competent person to use them.

EXTERNAL ANIMAL PARASITES OF THE CAT.

BY HENRY GRAY, M.R.C.V.S.

THE *Cat-flea* (*Pulex serraticeps*) is readily recognised, under a low magnifying power, by it having black, blunt spines of seven to nine in number, arranged as the teeth of a comb, at the posterior border of the prothorax and at the inferior border of the head, which distinguishes this flea from the human flea—*Pulex irritans*. The cat-flea, which also is the one that affects the dog and sometimes the rabbit, may live on man, but it rarely pricks him, and the human flea can be conveyed to the cat, dog, and rabbit. They are troublesome insects, irritating animals and disturbing rest. They prefer to attack the cat when she is suckling her kittens, which also become affected. Their favourite seat in the cat is the posterior half of the under surface of abdomen, and they are of more frequent occurrence than most people are aware. The idea that the cat is rarely affected results from the fact that the cat is not so intimate with its owner as the dog, and by it leading a more independent life. They cause irritation of the skin by puncturing it, and if there is scratching or biting of it on the part of the animal, eruptions and sores besides the flea-bites are produced. But this is rare. The skin becomes dirty with the black, coffee-ground appearance of the fæces of the flea, and eggs, which are oval in shape, having a bluish colour, resembling maw or poppy seeds. It must not be forgotten that it plays an important part in the evolution of the *elliptical tapeworm* (*Tænia elliptica*) by harbouring the intermediary cysticercus, the ingestion of which gives rise to the development of this tapeworm in the intestine of the cat.

The best *treatment* for their removal is to rub into the coat of the cat powdered pyrethrum or Persian insect powder. It is done by brushing forward the pelage by a brush or by the hand, and then sprinkling on plenty of the powder and rubbing it well into the roots of the hair. About half-an-hour after the cat should be placed on a sheet of newspaper and the coat combed out with a small-tooth comb. All the fleas, eggs, and *débris* thus removed must be burned. The cages and sleeping-places also require attention. They should be well sprinkled with oil of turpentine or sanitas powder, and finally dusted over with freshly slaked lime. Care must be taken that the corners and crevices of the apartments are well done. The litter or bedding should be burned. It must not be forgotten that fleas undergo metamorphosis in sand and dirt, and that late in the summer and the commencement of autumn rain or wet weather will drive them into dwellings. This is the reason why they are so commonly seen at these times of the year.

The *Chigoe*, jigger, sand or penetrating flea (*Sarcopsylla penetrans or Pulex penetrans*), which is found in tropical countries, such as Central America, Brazil, Guinea, and Mexico, and which lives on plants, forage, and sand, attacks the cat as well as other domestic and wild animals, and even man. The female burrows into the skin and causes inflammation and then ulceration, and even gangrenous wounds, so much so that it may cause mutilation of the parts or limbs.

The *treatment* to be adopted is to destroy or remove the insect. A solution of chromic acid or strong tincture of iodine will be useful, but care must be taken not to let the cat lick these substances, else the remedy will be worse than the disease.

Fortunately for the cat, it is only affected by one *louse* (*Trichodectes subrostatus*), which differs from the flea by being a wingless insect, and by not jumping and only quitting the cat by accident. It has three-articled antennæ, and the head has five sides to it, and the body is as oval as possible, and is notched behind in the female. Its colour is yellowish brown. It is seen in young Persian cats, but also in the common bred ones, and it may or may not be associated with fleas or mange. It is not a blood sucker, but attacks the hair and eats the epidermis, preferably that of the head, neck, back and limbs, where it causes intense itching. It develops rapidly upon poorly-fed, weak and debilitated animals. There is itchiness, loss of hair, scurfiness, and nits (eggs) in more

or less large numbers, which by their presence indicate that the skin has not received sufficient attention. The nits or eggs are attached to the hairs by a gluey material, and are difficult to remove. It must not be forgotten that this insect, like fleas, can and does harbour the larval form of the elliptical tapeworm, and that there seems to be a mutualism between external parasites and this tapeworm.

To *remove* lice, the skin requires to be treated as for fleas, and after this is done, the coat should be well rubbed all over with the following lotion every day, for four or five days, afterwards well drying in front of the fire.

Tincture of camphor ... ... 4 drachms
Vinegar ... ... add to 6 ounces

The vinegar destroys the eggs by destroying their shells, the spirit of camphor causes them to become loosened, and then stifles the young insects.

Good food, as raw meat, fish, milk, cod-liver oil and iron tonics are good to prevent a predisposition for the renewal of parasites.

The *Red Mite*, red flea or harvest bug (*Leptus autumnalis* or *Trombidium holosericeum*), is only a parasite in its larval state when it has six legs. It is not larger than a very small pin's head, is scarlet in colour and covered with bristly hairs. It resembles at first sight small grains of powdered capsicum or cayenne pepper. It attacks the cat and dog between the claws where it may be seen in clusters of four or five ; it may also be seen inside the ears and other parts of the body. It is generally seen in harvest time after animals have wandered into fields, and it causes intolerable itchiness and redness by puncturing the skin with its mandibles which resembles the lobster's front claws. *Treatment*—Oil of turpentine one drachm, camphor one drachm, olive oil or glycerine add to one ounce and mix, makes a sure and certain liniment for their destruction. It should be applied by means of a feather or camel's-hair brush to the affected parts only. But where the whole body seems to be swarmed with them a quassia bath is better. Take two ounces of quassia chips and boil in a quart of water for half an hour, strain, and then add half an ounce of soft soap, and allow this to get cold. Then rub well all over the animal, between claws and pour into ears and dry well.

The *Ear-mite* (*Symbiotes auricularum*), which causes the so-called but erroneously termed canker of the ear; and the *mange-mite* (*Sarcoptes minor*, variety *cati*), which causes true mange, itch or scab, have both been dealt with elsewhere.

Maggots sometimes affect the nose, eyes, ears, mouth and anus of the cat when she becomes debilitated from disease and neglect, so that it is necessary to just mention the fact.

The *follicle-mite* (*Acarus* or *Demodex folliculorum*), is sometimes found in the ears, on the nose of the cat, as well as in the sebaceous follicles of man, but it does not seem to cause skin disease in them like it does in the dog, in which animal it gives rise to the so-called red, black, scabby, or follicular mange which is difficult to cure. Under the microscope it has a caterpillar-shaped body.

STATUS OF SCOTTISH SECRETARY TO THE BOARD OF EXAMINERS.

"Absence the best expedient they could find."—DRYDEN.

IT is to be sincerely hoped in the interest of the members present at the Meeting of the Council of the R.C.V.S., held on January 13th, that their minutes, so far as referring to the status of the Scottish Secretary, will not be approved.

Our readers will find from our report of the meeting in another column, that the Council were endeavouring to devise means by which they may evade all "danger" of being made answerable for their acts in Scotland, in which country they have—

1. The entire monopoly of granting diplomas to successful candidates, and

2. The right to prevent anyone not holding a diploma in proper form, from practising the veterinary art; and where also there are three colleges preparing students for examination as against one in England, and where, moreover, there are more candidates than in the latter country.

The highly-dignified means by which they hope to attain this end, are as follows:

1. The Secretary to the Board of Examiners for Scotland is no longer to be allowed to sign diplomas.

2. He is not to be allowed to head his notepaper "Royal College of Veterinary Surgeons."

The first of these prudent and sapient proposals involves that Mr. Rutherford, who attends to the conduct of the examinations in Scotland, and sees all the candidates' certificates and papers, is not to certify their diplomas, while the English Secretary, who has little or no communication with Scotch students, is so to certify.

Does the Council think that this system will tend to accu-

racy? Do they think that it increases the dignity and authority of the office of the Scotch Secretary to the Board of Examiners, at present held by a tried and worthy representative, Mr. Rutherford? Can the Council have forgotten bye-law 78: "The Board shall have two secretaries, one to act in England and the other to act in Scotland," and we would ask them this—Do they propose that Mr. Hill shall attend the Scotch examinations? If so, that is plainly irregular, and might vitiate every certificate he signed, as he has no authority under the bye-laws to act in Scotland as Secretary to the Board of Examiners; or are the diplomas to be forwarded to England and Mr. Hill to certify the results of examinations of which he has no knowledge? Were we Mr. Hill, we would respectfully but firmly decline to attach our name to such documents. Mr. Hill at present formally signs the Scotch certificates, but Mr. Rutherford's signature is the guarantee for the identity and presence at the examinations of each student whose name appears on a Scotch diploma.

The second proposal is too deep for our vision, which being only editorial is, in the nature of things, limited. If Mr. Rutherford represents the R.C.V.S. in Scotland by doing its business with its authority there to such an extent as to involve the College in legal responsibility in that country, it humbly appears to us that the exercise of his discretion in the matter of heading his letters, cannot alter the position. It is more than half a century since Mr. Sam Weller spoke, and no doubt, though it had not hitherto come to our knowledge, the "patent double million magnifying gas microscopes of hextra power" are now an accomplished fact and at the disposal of certain members of the Council. One member suggested that Mr. Rutherford should conduct his correspondence on paper headed R.C.V.S., 10, Red Lion Square, London, but added, with a brilliant inspiration of business acumen, that he might, if he so desired, add his private address. This, no doubt, is a very satisfactory arrangement for everyone but Mr. Rutherford, and his unlucky correspondents. No doubt Mr. Rutherford would exercise an option so valuable and so graciously accorded to him, but the unfortunate correspondent, after consulting all the members of his family circle as to where he should address the reply, and, finding them equally divided in opinion, would no doubt finish up by tossing for it, and, pursued by the fate which deservedly attends all gamblers, his coin would fall "woman for Red

Lion Square," and forty-eight hours would be lost and perhaps make his application too late.

The laurels of that gentleman who said that Ireland was chiefly inhabited by absentee landlords, are in danger. Scotland is now threatened with a governing College that makes its presence very palpable but isn't there, with a Secretary for Scotland who may not declare his authority. We understand that in byegone days there was a Sanctuary at Holyrood within which all were exempt from legal diligence. Should it not be revived so that the R.C.V.S. might establish their Scottish Office there?

We do not pretend to lay down the law, but we are advised that in any monetary claims jurisdiction in Scotland can be founded by attachment of the College's funds in that country whether it has an office there or not; so that all this scheming would in monetary actions be of no avail.

It is usually found that attempts to shirk only increase difficulties.

Can it be said to be consistent with the traditions of the R.C.V.S., the premier Corporation of its kind in the world, that its Council should thus propose and seriously consider subtle methods to avoid possible responsibilities to the Courts and people of Scotland; a people who have always been most loyal supporters of the Veterinary Art and of the R.C.V.S., since ever it was incorporated, and to which the College has wide and important functions to perform; functions which have been solemnly committed to it by the Sovereign and by Parliament.

VETERINARY HONOUR.

We have to congratulate Mr. R. Rutherford, F.R.C.V.S., Edinburgh, Secretary to the Board of Examiners of the R.C.V.S. for Scotland, on his appointment as additional examiner in veterinary hygiene to the Edinburgh University for the degree of B.Sc. in Agriculture.

Army Veterinary Department.

Extracts from Major-General Sir B. Blood's despatches, dated 27th October, 1897, published in *London Gazette*, of January 11th, 1898:—

59. "The transport was most efficient throughout the operations under reference and its management, under the

direction of Captain C. G. R. Thackwell, Divisional Transport Officer, who was most ably and energetically assisted by Veterinary-Captain H. T. W. Mann, Senior Veterinary Officer, was most successful. In proof of this I will cite a report just made to me by Brigadier-General Jeffreys, commanding the 2nd Brigade of my force, that this morning on inspecting 1,265 mules attached to the brigade, which have just returned from seven weeks in the field, he found fourteen sore backs and four animals otherwise unfit for work, and a total of only eighteen disabled animals in all."

62. "The working of the several departments of the headquarters staff was most satisfactory and successful. The heads of the departments were :—

"Veterinary-Captain H. T. W. Mann,*, Army Veterinary Department, Senior Veterinary Officer."

Yeomanry Cavalry.—Shropshire: Vet.-Captain H. Barnes to be Vet.-Major. Dated 19th Jan., 1898.

Vet.-Lieut.-Colonel J. C. Berne is placed on retired pay. Dated 18th Jan., 1898.

Vet.-Major G. Durrant to be Vet.-Lieut.-Colonel, vice J. C. Berne. Dated 18th Jan., 1898.

J. A. B. McGowan, gent., to be Vet.-Lieutenant in succession to Vet.-Major G. Durrant. Dated 22nd Jan., 1898.

Moves.—Vet.-Lieut.-Colonel G. Durrant has been posted to London for duty at the War Office, on promotion.

Arrivals.—Vet.-Lieutenant E. Wilkinson arrived from India on 22nd ult. on completion of tour of foreign service.

Vet.-Lieutenant W. S. Anthony arrived 22nd ult. on six months' sick leave of absence from India.

Editorial.

A POINT OF HONOUR.

READERS of the VETERINARY JOURNAL will find printed in the current number section 43 of the Public Health (Scotland) Act, 1897 (see page 148), and to this I direct attention. It is true the Act applies only to Scotland—as yet; but I have made it my constant endeavour to point out to my friends in the south that legislative enactments are regularly passed for Scotland merely as experiments on a small scale and for the purpose of gaining the experience necessary for their subsequent application to the larger part of the island. This is

* "Wounded in action, 20th September, 1897."

doubtless as it should be, and it is a good lesson to us all in patriotism, as showing the solidarity of the British nation. I trust, then, that my esteemed readers in the south will carefully scan the present Act and regard it as a looking-glass wherein they may see themselves as they will be a year hence or two years hence.

Section 43, it will be seen, gives considerable advantages to the veterinary surgeon appointed inspector, and confers considerable powers. "He may at all reasonable times enter any premises," and again, "if any such animal appears to be diseased or unsound he may seize the same." Further on we find that "the medical officer or sanitary inspector, unless he is himself a qualified veterinary surgeon, shall be accompanied by a veterinary surgeon"; this is, at any rate, a step in the right direction, although I hope to see the day when only veterinary surgeons shall be available for appointment as meat inspectors. Now comes a very important clause:

> Provided that if such person proves that the animal . . . . was within a reasonable time prior to the seizure thereof, examined upon the premises where the animal was slaughtered, and passed by a veterinary surgeon . . . . who shall have granted a certificate of passing . . . . he shall be exempt.

Here comes in a difficult point. In the first place, we have all to make a living, and most of us find it a difficult thing, in view of professional, social, and domestic responsibilities, to get ends to meet comfortably and to lay aside some provision for the night which cometh, when no man can work. Clients are often unreasonable and deaf to the simplest argument; many are stupid or ignorant and unable to appreciate the high motives which guide our legislators and those who are called upon to administer the law; a great many more are selfish and greedy, and would have no scruple in enriching themselves at the expense of their neighbours—would not hesitate, indeed, to sacrifice their neighbours' comfort, and even health, to their own advantage, in their mad thirst for gain. Truly, in such circumstances, the veterinary surgeon is called upon to perform heroic work. If he refuses to grant a certificate of health, he runs the risk of being thought incapable, timid or unfriendly; he may even incur the suspicion of being in the pay of an opponent. In the conscientious performance of his duties, he may find himself dismissed by his client to make way for a younger man, whose very youth and inexperience give him the necessary boldness, or, I might say, temerity. And this younger rival may *remain* in

possession of the field; he may have made a serious mistake, and even got himself into trouble with the authorities, but he has served the turn, he has tided over the difficulty, and his client may say that common gratitude, or admiration for pluck—which is here only another name for audacity born of blindness—compels him to retain the young man as his veterinary adviser. Another possibility is that the veterinary surgeon may find himself moved by sympathy or pity to grant a poor client a certificate when the case is doubtful, in the hope that the client may scrape through; in such circumstances we salve our consciences by reflecting that the case is really doubtful; we may possibly be wrong, the symptoms may have deceived us, the text-books may be incorrect. This may savour of weakness, but it is a weakness that leans to virtue's side. Lastly, there is a dreadful possibility of revenge actuating an inspector and dictating his verdict—a remote possibility, let us hope, but still a possibility; the inspector is all-powerful, and there seems to be no appeal from his judgment. Revenge, it has been said, is a wild kind of justice, and it is, if one of the most barbarous, one of the strongest instincts of our race and we must be constantly on our guard against its inroads. Besides, though we may think revenge justified in our case, we generally condemn it as a hideous vice in our neighbours, and so the successful vindictive man must be prepared for heavy blame.

Now what is the remedy for all these evils? How are we to escape from our perplexities? It seems to me that there is but one way. We must constantly remember the solidarity of the profession, remember that when one member suffers the whole body is affected. We must, when appointed inspectors, shut our eyes to everything but truth—and see that our neighbours do the same. If called upon to give certificates, we must make sure that we are not ousting the regular veterinary adviser of the person who asks us for such; apart from breach of professional etiquette in cases of this sort, there is the distinct danger of being deceived or hoodwinked, because the chances are ten to one that the regular veterinary adviser of the party has been asked to give a certificate, and, knowing the details of the case, has refused.

Then if a fellow-practitioner gets himself into grief through granting certificates, whether from greed, imprudence or ignorance, we must not allow ourselves to be affected by false pity nor permit any mawkish sentimentality to blind us to

the justness of his punishment. Indeed, we must watchfully bring up all such cases before the Royal College and take care that the delinquents are duly reprimanded. The honour of the profession must be vindicated at all costs: after all it is our only chance of safety. We may have to say some day as King Francis said "All is lost save honour," but I do not think so; in any case, better an honourable death than a life of servile and ignoble ease.

Proceedings of the Royal College of Veterinary Surgeons and Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

A QUARTERLY meeting of the Council was held at 10, Red Lion Square, on Thursday, January 13th. Present: Professor Penberthy (President) in the chair; Professors Dewar, Edgar, McFadyean, Vet.-Col. Lambert; Messrs. Abson, Barrett, Beddard, Carter, Cope, Dollar, Elphick, Fraser, Lawson, Locke, Mason, Mulvey, Simpson, Trigger, Villar, Wragg, and Mr. A. W. Hill (Secretary).

Minutes.

On the motion of Mr. LAWSON, seconded by Mr. FRASER, the minutes of the previous meeting were taken as read and confirmed.

Absentees.

The SECRETARY announced that he had received letters of apology from the following gentlemen regretting their inability to attend the meeting: Mr. Bower, Mr. Hartley, Professor Williams, Professor W. O. Williams, and Mr. Wartnaby.

Correspondence.

The SECRETARY read a letter from Veterinary-Captain Butler, saying, "It is with great regret that owing to my being ordered abroad, I am compelled to resign my seat on the Council of the R.C.V.S."

Mr. MULVEY: I beg to move with reference to Veterinary-Captain Butler's letter, that his resignation as a member of the Council be accepted with regret.

Mr. LAWSON seconded the motion, which was agreed to.

The SECRETARY read a letter from Dr. Johne, of Dresden, thanking the Council for His Honorary Associateship diploma.

The SECRETARY read a letter from Mr. Rutherford, thanking the Council for his re-appointment.

The PRESIDENT: There is a letter from Mr. Thatcher, the solicitor, with regard to the Custance case. It is really a report on the whole matter. I presume you will think it desirable to have it read.

The SECRETARY then read the following letter from Mr. Thatcher:—

Examination Committee—Lady Students.

DEAR SIR,

In reference to the case of Miss Custance, a lady who claimed to be admitted to first professional examination, as being a student at the New Veterinary College, Edinburgh, I have to report as follows:—In accordance with the resolution of the Examination Com-

mittee, confirmed by the Council, I gave notice to the lady that the Council declined to admit her to examination, without authority from a competent court of law, and I invited her to test the question by *mandamus* in the Queen's Bench Division, offering, at the same time, to make all admissions, so that the only question to be tried was whether lady students had the same right as male students. There was some negotiation between the lady's solicitor and myself as to whether it should not be tried in the Scottish courts instead of an English one, but having regard to the question of precedent which might hereafter arise in consequence of such consent on the part of the College, I adhered to my original proposition, pointing out, at the same time, that the course proposed by the College was far cheaper and more expeditious; and that if proceedings were taken at once, there would be time for the lady to come up to the May Examinations, assuming her to be successful in her contention. So far as the lady herself is concerned, no further step was taken, but in May, Professor Williams and his son commenced proceedings in the Scottish Courts, beginning by arrestment of £60 of the examination fees in the hands of the Secretary of the Scottish Board of Examiners, alleging that such amount was due to them for damages done to them as principals of the New Veterinary College, for refusing to admit one of their students to examination. To this, under the advice of counsel, I pleaded that the Scotch courts had no jurisdiction, and on this plea the Scotch courts have dismissed the case, with costs, as against Professor Williams and his son, and the time for appeal has now expired. Personally, I would have been quite as content to have the main issue decided by a Scotch court as by an English one; but when it became a point of establishing a precedent which would have resulted that any dispute with any Scottish college or Scottish practitioner, or Scottish person, might involve the stoppage of the College money in Scotland, it appeared both to the Standing Counsel of the College, and myself, that a determined stand should be made, and the question fought out once for all; and in this view I may say I was supported by the President. By the President's instructions I was present when the question was argued in Scotland, and I beg to give my testimony to the very able manner in which it was conducted by Mr. Shaw (Ex-Solicitor-General of Scotland, Mr. Abel, advocate, and the solicitors, Messrs. Wishart and Sanderson. I extremely regret to add to this report that Mr. Abel died after a very short illness, about a week ago, at the early age of 33.

The PRESIDENT: Before this letter is passed over, I should like to say that we thought our case stood in great jeopardy owing to the fact that there is an assumption that there is a Royal College of Veterinary Surgeons in Edinburgh, that is to say, that we have a *locus in quo* there, and that we can be sued, and all that sort of thing. I find that Mr. Rutherford dates his letters, "Royal College of Veterinary Surgeons, Edinburgh," though certainly he puts at the side, "Secretary to the Board of Examiners." I understand that he signs or counter-signs the diplomas that are granted in Scotland, and I am informed that if all this had come out in court, the verdict would probably have been very different from what it was. I should like to know what the feeling of the Council on this matter is—whether we have a R.C.V.S. in Edinburgh, and whether the fact of signing a diploma by a person who is not the Secretary of the R.C.V.S., but Secretary to the Board of Examiners, meets with your approval? This matter was brought to my notice and accentuated by this case. There was no necessity for me to interfere, because it seemed to me clear that there is no necessity for Mr. Rutherford's signature on the diploma, and there is no *locus in quo* of the R.C.V.S. in Edinburgh. If it is the will of the Council, I think it would be well that the Secretary of the Board of Examiners should be informed of it.

Mr. MULVEY: Do you wish for a resolution on the matter?

The PRESIDENT: I should like one.

Mr. TRIGGER: I think this has arisen entirely through a misapprehension.

The PRESIDENT: Certainly.

Mr. TRIGGER: We have but one Secretary of the R.C.V.S., namely, Mr. Hill. We have a Secretary to the Board of Examiners, who acts simply under the instruction of the Board, and is Secretary to the Scotch Board only. We have also one home, which is situated in Red Lion Square. I

would suggest that all diplomas, no matter at what college the student graduates, whether Scotch or English, should be signed exactly as they are, by the same Board of Examiners and by the same Secretary. I also suggest that Mr. Rutherford should be supplied with such stationery as is necessary, headed, "Royal College of Veterinary Surgeons, 10, Red Lion Square." If he chooses to add his private address in Edinburgh, of course it will be optional for him to do so, in writing. I beg to move, "That it be an instruction to the Secretary to sign all diplomas, whether Scotch or English, as Secretary of the R.C.V.S., and supply the Secretary to the Board of Examiners with such stationery, properly headed, as may be necessary."

Mr. MASON seconded the motion.

Mr. DOLLAR: I think, perhaps, the suggestion which I am going to make might be accepted by Mr. Trigger. I quite agree that all our diplomas should be issued in a uniform manner and signed by Mr. Hill, as secretary. But with regard to supplying Mr. Rutherford with stationery, I think that might give rise to considerable inconvenience and misunderstanding if the stationery were headed as suggested. I would therefore suggest that if stationery be issued it should bear Mr. Rutherford's address, and that he be instructed that if he adds any description to his name when signing, he restricts himself to describing himself as "Secretary of the Board of Examiners," and do not use the term, "Secretary of the R.C.V.S.," as that might give rise to some misunderstanding.

Mr. TRIGGER: On the corner of his correspondence, Mr. Rutherford has printed, "Secretary to the Board of Examiners, Scotland."

Mr. DOLLAR: In that case the heading, "Royal College of Veterinary Surgeons, London, is misleading, and that is what we have to remedy. If Mr. Rutherford substituted for "Royal College of Veterinary Surgeons" a notice of this kind, "R. Rutherford, F.R.C.V.S., Secretary to the Board of Examiners for the R.C.V.S., Edinburgh," it would meet the case.

Mr. ABSON: No, not "Edinburgh." That is the word that should be dropped.

Mr. DOLLAR: That is the point I wish to draw attention to. Possibly a more desirable amendment would be that the matter should be left with you, sir, to deal with, as you consider fit. Inasmuch as you yourself have raised the point, it might be left with you to suggest such alterations as you consider best. With your legal knowledge I feel sure you will be quite capable of getting us out of the difficulty.

The PRESIDENT: I merely brought the matter before the Council to find out what its opinion is, as I think it ought to be recorded. I will act of course on any suggestion which is made by the Council.

Mr. SIMPSON: If Mr. Rutherford will be content to sign himself, "R. Rutherford, Secretary of the Board of Examiners, Scotland," there would be no necessity for printing any heading on the stationery,

The PRESIDENT: That, I think, will meet the case.

Mr. VILLAR: There is one point which is not quite clear to my mind. Supposing our secretary, Mr. Hill, signs the diplomas, will it be necessary for Mr. Rutherford's signature to appear?

["No, certainly not."]

The PRESIDENT: I understand from Mr. Hill that he signs every diploma, but that they are also countersigned by Mr. Rutherford.

Professor DEWAR: As this is almost purely a legal question, I move that it be left to the President and Mr. Thatcher to decide what should be done.

Mr. TRIGGER: I wish it to be understood distinctly that I do not impute to Mr. Rutherford anything but the best intentions.

The PRESIDENT: Nobody does.

Mr. TRIGGER: He is labouring under a misapprehension which should be removed. I move, "That all diplomas be signed by the Secretary of the R.C.V.S. only, and not countersigned by Mr. Rutherford, and that no heading of 'R.C.V.S.' appears on any stationery he may use."

Mr. WRAGG: Will you add, "In consequence of what has come to light during the progress of the Custance case?"

Mr. ABSON: That is the point.

Mr. DOLLAR: I will withdraw my amendment and second Mr. Trigger's motion.

Mr. ABSON: Will this admission render the Custance case liable to be re-opened?

The PRESIDENT: They can re-open it at any time they like in England.

Mr. DOLLAR: Is it not a fact that all they can re-open is with regard to the rights of Miss Custance, and that the only action of ours which could have been imperilled was the action which Professor Williams took in the Scotch courts to obtain a further trial in Scotland, and, therefore, that if it has once been decided that the trial must take place in England, this could no longer constitute a danger to us?

The PRESIDENT: Not the slightest danger to us.

Mr. DOLLAR: The Scotch trial cannot be revived.

The PRESIDENT: No.

The motion was agreed to.

The Walley Memorial.

The SECRETARY read a letter addressed to the President by Mr. Rutherford, which was as follows: "Dear Professor Penberthy, Walley Memorial Fund. You will find over £300 is in hand to the credit of this fund, and as we are not likely to get much, if indeed any more, we purpose closing the matter and select trustees to administer the fund. As you may be aware it has been proposed that the money shall be invested in the name of trustees, and that the interest on the same annually be devoted to the giving of the medal or medals, open to students of all colleges. I should like to be informed whether or not the R.C.V.S. would be prepared to accept trusteeship."

Professor DEWAR: Perhaps I ought to say a word with regard to this matter. Mr. Rutherford was appointed Secretary to the Walley Memorial Committee after Mr. Finlay Dun's death; but that letter has been written by him on his own responsibility. He has had no instructions from the Committee in any way with regard to it.

The PRESIDENT: The letter is addressed to me, but it is, of course, for the Council to decide whether they will act as trustees or not.

Mr. MULVEY: Do I understand that Mr. Rutherford has no authority to ask the Council to act as trustees?

Professor DEWAR: Certainly. Mr. Rutherford wrote this letter on his own responsibility alone. He had no instructions from the Committee.

Mr. MULVEY: In what position is Mr. Rutherford?

Professor DEWAR: Secretary to the Committee.

Mr. MULVEY: Who is the Chairman?

Professor DEWAR: I am the Chairman.

Mr. DOLLAR: In that case I will move: "That the letter be allowed to lay on the table."

Veterinary-Colonel LAMBERT: Will Professor Dewar state whether he has any other views on the matter?

Professor DEWAR: I don't think I am at liberty to state what views I hold. The matter has to come before the Memorial Committee in the first place.

Mr. DOLLAR : After Professor Dewar's statement, who is the Chairman of the Committee, I think we should be placing ourselves in a very invidious position if we countenanced any such action as that suggested by Mr. Rutherford. It seems to me to be a most peculiar thing for a secretary to take such action without consulting either his committee or his chairman. If this is not an official communication I do not see how we can deal with it.

The PRESIDENT : There are two constructions to put to it. The Secretary is the executive officer, and he might wish, perhaps, to be prepared at a meeting to say : "The R.C.V.S. will be perfectly willing to take the trusteeship." Mr. Rutherford knew the letter would come before the Council, because I wrote to him to that effect.

Mr. TRIGGER : I will move "That a courteous letter be sent to Mr. Rutherford asking him to send us a letter from his committee."

Mr. BARRETT seconded the motion.

Mr. SIMPSON : I would suggest "That Mr. Rutherford's letter be acknowledged, and that he be asked whether his letter embodies the wishes of his committee."

Mr. MULVEY : I will second that suggestion.

Mr. DOLLAR : I will withdraw my motion in favour of Mr. Simpson's proposal, as I think it is really a more severe motion than my own.

Mr. TRIGGER : I, too, will withdraw my motion in favour of Mr. Simpson's.

Mr. SIMPSON'S motion was then put to the meeting and carried.

Letter from Mr. Rutherford.

The PRESIDENT : There is another letter from Mr. Rutherford which I should have preferred not to trouble you with ; but inasmuch as it has entailed the writing of a leaderette, as I am told, and as some public attention has been called to it, I must ask our secretary to read it. I may say that Mr. Rutherford is the only person who has communicated with me. I have not heard from Mr. Spreull, whose name is involved, and the matter has not been mentioned to me by our secretary.

The SECRETARY then read the following letter from Mr. Rutherford dated January 5th, 1898 :—

DEAR PROFESSOR PENBERTHY,

I notice with some regret a leaderette in this month's VETERINARY JOURNAL referring to an incident in connection with our December Examination. There is some confusion in the statement made, as I think it well to acquaint you directly with what occurred, so that too much may not be made of it. When Mr. Dun was ill, Mr. Spreull was appointed to act in his place. This he did last May here, and I believe he also did so in London in July. It would seem, however, that since then Mr. Hunting has been appointed, but, unfortunately, no intimation of his having been so was sent to me, so that when I summoned the examiners for December, I summoned Mr. Spreull, the only one, to my knowledge, appointed to act. It was, of course, rather awkward having both gentlemen come up to perform the same duty, but on my explaining to Mr. Spreull that a mistake had been made in omitting to inform me of Mr. Hunting being appointed to the work, he took the thing very well. I expressed to him my great regret for his annoyance and trouble, and the expense he had been put to, and said that as the mistake had its origin in London, I would write to Mr. Hill, who, no doubt, would explain the matter better than I could. I did write to Mr. Hill, and I understand he has written fully to Mr. Spreull. At the written examination I heard a rumour, through Mr. Elphick, that Mr. Hunting had been appointed examiner, but in the absence of an official intimation, I paid no heed to the rumour. I have not mentioned the matter in any report because of the mistake having arisen in London, and having already called Mr. Hill's attention to it, I left the matter in his hands. Of course, it is a pity that a notice of the change of the *personnel* of the Board was not sent to me. I thought, however, the thing was overlooked,

and until I saw the leaderette to-day, I was in the hope that my expressions of regret personally, and my letter had practically closed the incident.—R. RUTHERFORD.

Mr. MASON: We have heard one letter, and I should like to hear Mr. Hill's reply to Mr. Spreull or to Mr. Rutherford. We might as well have the whole correspondence.

The PRESIDENT: Perhaps Mr. Hill will read his reply.

The SECRETARY: My reply was as follows: "December 21st, 1897. Dear Mr. Spreull, I regret exceedingly to hear that you had been summoned to attend the examination in Scotland, and deeply regret you should have been so inconvenienced."

Mr. MASON: That is not what I want. I want any letters bearing on this point written to Mr. Rutherford.

Mr. BARRETT: I suppose Mr. Hunting was appointed by you, sir; may I asked when he was appointed?

The PRESIDENT: I should say about the 30th of November—sufficiently long for the questions to have been set five weeks before the examination.

Mr. BARRETT: If that is so, I should like to ask why Mr. Rutherford was not informed long before.

The PRESIDENT: That appears to be one of the main questions at issue. I may say I have never heard anything about this. I only heard from Mr. Rutherford last week. I have not been communicated with from the office below.

Mr. TRIGGER: I may say that when occupying the Presidential chair I appointed Mr. Spreull to act in the place of Mr. Finlay Dnn (who was unable to attend) for that examination only. I do not understand the remark which has been made, and repeated in Mr. Rutherford's letter, as to the mistake originating in London. I utterly fail to see that. Mr. Rutherford is aware that Mr. Spreull is not a member of the Examining Board, and if Mr. Rutherford summoned Mr. Spreull to attend the examinations, he summoned a gentleman without instructions, who is not a member of the Examining Board at all. The London examination took place before the Scotch examinations, and Mr. Rutherford must have known that the Examining Board was complete, and that the same Board that examined in London examined in Scotland. He also must have been perfectly well aware that the written questions had been set and forwarded to him, and that therefore the Examining Board was complete. I think a reply should go back from the Council saying that it failed to see that the mistake originated in London in any way.

The PRESIDENT: It would have been courteous to have communicated with him.

Mr. TRIGGER: I fail to see that Mr. Rutherford had any right to assume that Mr. Spreull was to be summoned.

Professor EDGAR: I think we ought to express a strong sense of our disapproval of conclusions being jumped at by the Secretary in Scotland. He had no right whatever to assume that Mr. Spreull was again appointed. Mr. Spreull was not an examiner, and the whole inconvenience has arisen (if there was a misunderstanding) from Mr. Rutherford not getting instructions from London. The correspondence which has been published in the papers with reference to the leaderette, etc., is calculated to cast reflections upon this College, which should entirely refer to the Secretary in Scotland for precipitate action. We have no right to take any such blame, and no one has any right to cast it upon us.

Mr. BARRETT: I quite fail to see why Mr. Rutherford is so unanimously condemned here to-day. I entirely disagree with the remark which has fallen from the last speaker. It seems to me to be very clear, indeed, that

Mr. Rutherford was not to blame, because I take it that it was the duty of the President or of the Secretary to inform Mr. Rutherford of the appointment of a new examiner. I think I am right in saying that Mr. Spreull examined in therapeutics at the previous examination.

Mr. TRIGGER: He held no appointment.

Mr. BARRETT: No intimation having been sent to Mr. Rutherford, he, very wisely, in my opinion, concluded that Mr. Spreull was to act again. I notice with some regret that many gentlemen seem inclined to jump upon Mr. Rutherford on every possible pretext. I submit that the remarks which have been made to-day imply that, as I think, it is to be regretted.

The PRESIDENT: As marking the feeling which has prevailed to-day, that has not been my impression. I only say that, as you have made the remark.

Mr. BARRETT: If I have made any remark of a rude character I most unhesitatingly withdraw.

The PRESIDENT: Certainly not.

Mr. BARRETT: There does seem a tendency on the part of some gentlemen to blame Mr. Rutherford on every possible occasion. You, sir, have just informed me that Mr. Hunting was appointed by you five weeks before the examination was held, and, therefore, I submit that it was your duty to instruct the secretary to inform Mr. Rutherford that a change had taken place. In the absence of that information Mr. Rutherford was perfectly justified, in my opinion, in assuming that the old arrangement was going to continue, and that Mr. Spreull would act as examiner in. I think we should show more courtesy to Mr. Rutherford if the secretary wrote a nice letter saying that we regret a mistake has occurred, and that in future it would be desirable for him to communicate with us when, owing to indisposition, one of our examiners is unable to attend. I shall, with your permission, move an amendment to any motion censuring Mr. Rutherford.

Mr. MULVEY: It is evident that Mr. Barrett has not studied the bye-laws on this subject, otherwise he would be perfectly aware that the President has no power to appoint an examiner, except to act in the absence, through ill-health, of another examiner.

Mr. BARRETT: I never said otherwise.

Mr. MULVEY: Mr. Barrett assumes that an examiner appointed by the President for one examination is to act at the following examination. That is not so. An examiner appointed by the President is only appointed for the time being.

Mr. BARRETT: I assure Mr. Mulvey I never said anything of the kind. Mr. Mulvey has totally misunderstood my remarks.

Mr. MULVEY: Mr. Barrett has stated that an examiner had been appointed. He was not appointed, he was simply delegated to attend because of the absence of Mr. Finlay Dun, and for one examination only. The same thing occurred during my presidency. I appointed an examiner to take Dr. Fleming's place for the time being. I did not for a moment expect that the secretary would then go and write to the same man to come again next time, because Dr. Fleming was well and capable of taking his place again.

Mr. BARRETT: I may say, in reply to Mr. Mulvey, that I do not in the slightest degree blame you, sir, for any action you took: you were perfectly justified. All I say is that Mr. Rutherford might have been informed. I am not blaming anyone. No doubt a mistake has occurred, and to my mind it has resulted from the action of the London men, and not from the action of Mr. Rutherford at all.

Mr. TRIGGER: Mr. Rutherford never made enquiries.

The PRESIDENT: Both our secretaries must know the bye-laws and their duties. I think it would have been a courteous act on the part of our secre-

tary to have sent a letter to Mr. Rutherford, with whom he is in constant communication, saying, "Mr. Hunting will examine this time." I think Mr. Rutherford was undoubtedly wrong, as is proved by the circumstances, in telling a gentleman to come who was not an examiner. It is as clear as daylight. Whether the Council will cast any blame by letter or not, is, of course, for it to decide. Had it not been for the leaderette we should not have heard a word about the matter. I may mention that Mr. Rutherford does send a notice to each of the examiners.

Mr. BARRETT: May I ask if Mr. Spreull was appointed by you, sir?

The PRESIDENT: Mr. Spreull examined the previous year.

Mr. BARRETT: Therefore, surely Mr. Rutherford concluded, in the absence of contrary information, that he was going to act again.

Mr. MULVEY: He could not act again without a fresh appointment.

Mr. BARRETT: He probably was not aware of that. We are not all of us learned in the bye-laws.

The PRESIDENT: This matter is occupying a good deal of time, and I shall be glad to receive a motion with regard to it.

Mr. ABSON: Is any motion necessary?

The PRESIDENT: Someone has proposed that a letter be sent to Mr. Rutherford, but the proposal has not been seconded.

Mr. SIMPSON: It is not likely to occur again.

Mr. LAWSON: I beg to move that we pass on to the next business.

Agreed to.

Presentations.

The SECRETARY announced the following presentations to the College:—The January numbers of *The Veterinarian*, *The Veterinary Journal*, and *The Journal of Comparative Pathology*, by the Editors; the Calendar of the Royal College of Surgeons; "The Origin and Progress of the Royal Veterinary College," by Professor J. B. Simonds; the Annual Statistical and General Report of the Army Veterinary Department, by the Director-General; and a **X** Rays photograph of a dog's tibia fracture, six weeks after occurrence, by F. E. Place, F.R.C.V.S.

On the motion of Mr. WRAGG, seconded by Mr. ABSON, a vote of thanks was accorded to the donors.

Presentation of the Steel Memorial Medals.

At this stage Veterinary-Major Smith was introduced into the Council Chamber.

The PRESIDENT: Professor McFadyean, and Veterinary-Major Smith, a very agreeable duty has been imposed upon me as President of the Royal College of Veterinary Surgeons, and that is to present you with the Steel Memorial Medals as evidence of the very high appreciation in which this Council—which represents the whole body of the profession—hold the services which you have rendered to science and to the profession. It is a particularly pleasing duty for me, as a very old friend of John Henry Steel, to make this presentation as an example of a hard and earnest worker—a greater than whom has never existed. I am sure that neither of the recipients of the medals to-day requires any incentive to harder work or more earnest labour; but I know they will to some extent feel that they are helped forward by the support which this acknowledgment of their services to the veterinary profession will always keep before them. The medal itself is evidence of our feelings towards you, gentlemen, and towards your work. I hope it will also be taken as an expression of our gratitude, and that it will still lead you further on in that path which has brought such great credit to yourselves, and

to the profession of which you are members. I have very great pleasure, Professor McFadyean, and, also, Veterinary-Major Smith, in presenting to you these medals.

Professor McFadyean. in acknowledging the presentation, said: Mr. President and gentlemen, I feel that in endeavouring to return my grateful thanks for this honour I ought not to make a long speech. I fear if I were to do so on the occasion of the presentation of the first of these medals it might be regarded as a precedent, fraught with much unhappiness to the future recipients of the honour, because I believe that great as the honour is there are some who would rather forego it than have to make a speech in acknowledging it. I will, therefore, only say that I value the honour very highly, and for a triple reason. I value it because of the man whose name is commemorated by the prize; I value it because it was awarded to me unanimously by those who are my colleagues round this Council table; and I also value it because my fellow-recipient is my old friend, Major Smith. I re-echo the hope, sir, which you have expressed, that this prize will keep green the memory of John Henry Steel; and I trust that that will be an incentive to those who receive those medals and those who aim at receiving them, and to the members of the profession generally, to endeavour to do work in the service of veterinary science.

Veterinary-Major Smith: Mr. President and gentlemen, I beg to thank you very heartily indeed for the kind manner in which you have referred to me in this matter, and also with having presented me with this medal, which has a two-fold interest to me. In the first instance, I believe it is the only reward which is in the gift of the Council, and, secondly, it is designed to commemorate the memory of a man who was a dear friend of mine. Very nearly twenty-five years ago, at the School at Camden Town, Steel and I laid down a programme which eventually influenced the whole of our lives. From that programme we made very little departure, although it was necessary that the details should be altered to meet the circumstances of the case as they arose. Steel worked the whole of his life; he worked when he was unfit to work, for he worked with more than one leg in the grave. I, too, have endeavoured to carry out my share of the programme, and the manner in which you have recognised it this afternoon has more than repaid me for any work which I may have done. I can only thank you again very heartily, and I am afraid very inadequately, for the kind remarks which have fallen from Professor Penberthy this afternoon.

The Diamond Jubilee.

The President: Since we last met it has been my great privilege to receive a communication from Her Majesty the Queen, enclosing one of the commemoration medals. It is with diffidence that I bring this matter forward, but inasmuch as it is a communication to me as President of the College, I take it as merely a reflection of what is intended for the College, and I thought it was better to bring the communication and the medal here in order that the Council might have an opportunity of receiving it officially.

Mr. Simpson: May the letter be read?

The President: Certainly.

The Secretary then read the following letter:—

Lieutenant-General Fleetwood presents his compliments to Professor Penberthy, the President of the Royal College of Veterinary Surgeons, and is commanded by the Queen to forward to him the accompanying medal to be worn in commemoration of the 60th anniversary of Her Majesty's reign.

Mr. Trigger: You will remember that, as President, I had the privilege of sending a loyal address to the Home Office. At the last Council meeting, I

am sorry to say, I quite forgot to ask if any answer had been received. Afterwards I wrote to Mr. Hill, and he said that a reply had been received. I believe it was simply to the effect that Her Majesty had been pleased to receive the address, but I think the Council should have had the reply placed before them.

The PRESIDENT: I have not seen the acknowledgment myself.

Mr. TRIGGER: As the letter came in reply to the loyal address which I had the honour of presenting to Her Majesty, I think it should be read to the Council.

The SECRETARY: This was the reply.

Whitehall, June 28th, 1897.

Sir,

I had the honour to lay before the Queen the loyal and dutiful Address of the Royal College of Veterinary Surgeons on the occasion of Her Majesty attaining the 60th year of her reign, and I have to inform rou that Her Majesty was pleased to receive the same very graciously.—Your obedient servant,

M. W. RIDLEY.

Mr. TRIGGER: I beg to move that that letter be recorded on our minutes.

Mr. CARTER seconded the motion, which was agreed to.

Jubilee Honours.

Professor EDGAR: I have a resolution to move bearing upon the honours which have been conferred upon members of the profession since we last met. This is our New Year's meeting, and we meet under peculiar and honourable circumstances, because it is the first time that our profession has received such high recognition from the throne as it has recently done. I desire—and I believe it will be the unanimous desire of the Council—to place on our minutes some expression of our appreciation, as a Council, of the honour which has been conferred upon us through members of our profession. I believe we shall unanimously congratulate both our President, Professor Penberthy, and Sir George Brown upon the dignities which they had received. Although, perhaps, the honours have come a little late, the old saying is true—that the highest gratitude we can have is a lively sense of favours to come; and I trust that this honour which has now been conferred upon the profession will be an incentive to us all to aim at higher things, and that we shall feel there is a goal of great honours lying before us. I beg to move,—"That this Council desires to record its highest appreciation of the Royal honours conferred upon the profession in the persons of its President (Professor Penberthy), and Sir George Brown, C.B."

Mr. WRAGG: I have very great pleasure in seconding the motion. He has expressed the feelings of all of us so well that it is unnecessary for me to do more than merely second the resolution.

The motion was carried unanimously.

Professor MCFADYEAN: The President has kindly granted me permission to bring before the Council a matter which can only be brought before it informally. I know it has been very widely felt, and by a good many expressed, that some public recognition should be taken of the honour which has been conferred upon Sir George Brown, and, through him, to the profession at large. A small committee has already been formed, composed of Mr. Cope, his old colleague at the Board of Agriculture, the President of the College, and myself, and Mr. Powys has kindly consented to join the committee. We have to-day sent a letter to the *Veterinary Record*, stating these facts, and asking those who are in sympathy with the proposal, and who would like to join the committee, to send in their names to Mr. Powys. At present our motion is that we should entertain them to a dinner.

Registration Committee.

Mr. SIMPSON, as chairman, read the report of the Registration Committee, and moved its adoption.

The report stated that an application had been received from Mr. John Howard for the restoration of his name to the Register. Having regard to all the circumstances of the case, the committee recommended that the application stand over for one year. The committee recommended that the Registrar be instructed to strike off the Register the following names of existing registered practitioners for non-compliance with the requirements of section 5, sub-section 4 of the Veterinary Surgeons Act, 1881 :—

Jabez Adams, Warminster, Wilts.
Alex. Alexander, Old Mill, Foreran, Cultercullen.
E. Allcock, 45, Molesworth Street, Dublin.
W. W. Almond, Great Bentley Green, Essex.
Henry Ashton, Sevenoaks.
Thomas Ashton, 29, High Street, Sevenoaks.
John Bacon, The Clusters, Belper, Derbyshire.
C. Baker, High Street, Wallingford.
Wm. Baker, Regent Street, Cheltenham.
Geo. Baley, 15, Burrell Street, Blackfriars.
Henry Beckwith, 298, High Street, Stratford.
James Bell, Leysmell, nr. Arbroath, Forfar.
W. H. Bell, Medical Hall, Banwell, Somerset.
G. Bentley, Middle Street, Beeston, Notts.
Richard Bone, Bell Hill, Petersfield, Hants.
E. Borton, Cropedy, Leamington.
Charles Bradley, Banbridge, co. Down.
W. D. Bray, Findon, Worthing.
Geo. Brown, Eva Cottage, Checkerell Road, Weymouth.
James Brown, 64, Morley Hole, Leeds.
J. Burden, jun., Austral House, Church Place, Freshwater, I. of Wight.
Samuel Burton, Sands Villa, Paignton.
P. Byrne, Imperial Hotel, West Street, Drogheda.
J. Carlisle, Priory House, Alceston, Warwick.
Alfred Clapp, 223, New Kent Road.
Herbert Cooper, Woodford Green, Essex.
John E. Cooper, Park Street, Chatteris, Cambs.
G. Cranfield, 102, Richmond Road, Westbourne Park, W.
Thos. Dart, Luckworthy, Molland, Devonshire.
J. Davies, Green Cottage, Llanfyhangel-ar-Arth, Carmarthen.
John Davies, Beechwood House, Craven Arms, Salop.
J. R. Dawson, Ivy Cottage, Floore-Weedon, Northampton.
J. Dewey, Donhead, St. Andrews, Salisbury.
Jonathan Donthwaite, Leven, Hull.
Hugh Drummond, Ballygowan, Antrim.
W. H. Elam, 16, Lindley Street, Castlefield, Shrewsbury.
E. Elworthy, Wetheridge, North Devon.
John Evans, Cymonyasha, Nr. Conway.
Alfred Falkner, Middle Bourne, Farnham, Surrey.
Pharoh Feather, Thornton, Nr. Bradford.
W. Fencott, 13, Stoke Newington Road, N.
Andrew Fleming, 83, Main Street, Rutherglen.
Robt. Ferguson, Dovecot, Pelton Field Colliery, Chester-le-St., Durham.
T. F. Fyrth, 56, James Street, Bradford.
J. E. Gibbins, Cobham, Surrey

C. M. Glass, Ferry Cottage, Durris, Kircardine.
J. H. Greenwood, Brigg Street, Keighly, Yorks.
D. R. Griffith, 4, George Street, Llanrwst.
H. S. Heigh, Brockholes, Nr. Huddersfield, Yorks.
Wm. Hall, 14, Chapel Lane, Royton.
T. Hargreaves, Boothfield, Newchurch, Lancs.
J. Harrison, Warsop, Mansfield, Notts.
R. Harvey, Fodenby, Nr. Liverpool.
E. H. Hathway, Charfield, R.S.O., Gloucester.
C. R. Hill, 50, Loftus Street, Hanley, Staffs.
A. Holman, Misterton, Nr. Gainsborough.
Andrew Howarth, 118, Water Street, Manchester.
J. Hunter, Hillhead, Ballyclare, co. Antrim.
J. Jones, 37, Belvedere, Bath, Somerset.
R. Jones, 45, North Street, Penzance.
W. Jones, Celyn News, Llanfiliangel-ar-Arth, Carmarthen.
C. Jordan, North Crawley, Bucks.
M. Keen, Todshead, Longhorsley, Morpeth.
J. M. Killbey, Henford Grounds, Banbury.
R. Killbey, Hockliffe Road, Leighton Buzzard.
G. J. Lavenden, 14, Halleford Street, Essex Street, Islington.
J. Laws, 111, Church Street, Marylebone, W.
J. Lemon, Hulland Ward, Nr. Ashburne.
J. Lloyd, Carno, Montgomeryshire.
T. H. Lowe, Well Mount, Christchurch Rd., Hampstead.
W. McGill, Stewarton, Ayrshire.
E. McLachlan, Albert Street, Kirkwall, Orkney.
T. N. Margarson, Stoke Ferry, Norfolk.
Fredk. Maynard, Bell Street, Romsey, Hants.
Thos. Maynard, Ashburton, Devon.
Geo. Mayor, Kirkham, Lancs.
A Moore, 19, High Street, Fulham.
F. Munslow, Wychbury House, Worcester Road, Droitwich.
Wm. Newman, Grove Street Mews, Bath.
F. Payne, Hartfield, Sussex.
Geo. Pierson, Hurndala, Whitby.
A. W. Phillips, 7, Palmerston Road, Bournemouth.
Wm. Phillips, Hordleigh, Suffolk.
G. Pipe, Cockfield, Sudbury, Suffolk.
H. J. Pym, Axbridge, Somerset.
R. Quick, Trewellard, Pendeen, Nr. Penzance.
W. Rawle, Newton St. Cyres, Devonshire.
J. Reynolds, Esker, South Dromod.
J. Reynold, Eye, Suffolk.
J. Rowbotham, Downing Street, Manchester.
Wm. Saunders, 4, Crane Street, Cork.
W. Scoltock, Brierly Hill, Round Oak, Staffordshire.
C. B. Shemmonds, Marlborough Mews, Marlborough Street, W.
J. G. Shepherd, Market Place, Easingwold.
J. J. Shepherd, North Kelsey, Briggs.
F. H. Shepherd, Soxilley, near Lincoln.
J. S. Simmons, 72, High Street, Thame, Oxon.
Wm. Smith, Short's Gardens, Drury Lane, W.C.
J. Sowter, 134, Horsley Fields, Wolverhampton.
H. Stanley, Silver Street, Edmonton.
J. Stebbing, New Bond Street, W.

T. J. Sudell, Market Place, Settle, Yorks.
C. B. Sweeney, Holm, Meltham, near Huddersfield.
P. J. F. Taylor, Percival Street, Cheetham, Manchester.
T. Tear, 16, Lucretia Street, Lower Marsh, Lambeth.
T. Teah, Walthim, Melton Mowbray, Leicester.
D. Thomas, Glanfyrniew, Montgomeryshire.
L. Thomas, Brighton, Sussex.
J. Tomlinson, Banbury, Tarporley, Cheshire.
J. Turley, Tenbury, Worcester.
A. Turnbull, Walbottle, Newcastle-on-Tyne.
C. J. Varney, Preston Bissett, Bucks.
P. A. Wardle, High Street, Hyde, Cheshire.
J. Winneral, Hyton Bootle, Cumberland.
D. White, Ynyshafran, Pontyeates, Kidwelly.
R. Whitheld, Middleham, Yorks.
J. P. Williams, 93, Water Street, Aberavon, Glamorgan.
H. Withers, 87, Thomas Street, Bristol.
Edmund Woods, Briston, Norfolk.
J. Warsfield, Norman Court, Petworth, Sussex.

The committee recommended that the following names be restored to the register:—Andrew Kerr Hart, Augustus Burney Wren, and Harry James Barnes.

Complaints having been made that the questions in the form of complaint prevented some persons from filling them up, the matter was referred to a sub-committee consisting of the President, the Chairman of the Registration Committee, and Messrs. Dollar and Abson, to see if the questions could be simplified. Cautionary letters were directed to be sent to certain members for advertising. Directions had been given for certain persons to appear before the next committee meeting or undertake to discontinue the offences complained of. The committee also recommended certain prosecutions against unqualified persons.

Mr. TRIGGER: I will second the motion for the adoption of the report, as it will give me an opportunity of correcting a very incorrect statement which appears in THE VETERINARY JOURNAL this month, to the effect that practitioners are to be practically tried *in camera*, and without knowing what charges are made against them. I assume that it emanates from the Editor of the Journal, and I am surprised he, as a member of the Council, should not be aware that every member of the profession against whom a charge is made is written to and informed of its nature. He is also asked if he has any answers to make and if he wishes to appear before the committee. I think it is necessary that this statement should be made in justification of the committee, because it was distinctly stated in THE VETERINARY JOURNAL that we tried a man in his absence without his knowing anything about it, and that is not correct.

The motion for the adoption of the report was then put and agreed to.

On the motion of Mr. SIMPSON, seconded by Mr. TRIGGER, the seal of the College was fixed to the prosecutions.

Mr. SIMPSON: While on the matter of the Registration Committee I should like to be permitted to make a statement which I think will be not only interesting to the Council, but to the members of the profession generally. You are doubtless aware that for many years past it has been the custom for time-expired farriers—farrier sergeants, I think, more particularly—leaving the Army to have a certificate given to them of which they make such use as I venture to think the Director-General and the members of Army Veterinary Department never for one moment contemplated. It is a fact, and I think my statement will be borne out by some members of the Council who are

present, and certainly by many members of the veterinary profession, that these men have been enabled to get situations not only as horse-keepers but as advisers to large firms by means of this certificate which was called an Army Veterinary Diploma—not by the Army Veterinary Department, mark you. I believe it was never contemplated that these certificates would be used in the way they have been. I took very little notice of one or two cases, but on another one coming to my notice I thought it my duty, as a member of the Council, to communicate with the Director-General, Colonel Duck, on the subject. I have had most courteous communications from Colonel Duck, and I have now his assurance that in future no certificates will be given to time-expired men. It will be the duty of the Director-General, or some veterinary officer, to certify to the commanding officer as to the ability of those men during their occupancy of the position of farrier-sergeants, but no certificate of any kind will now be given to them. I feel sure that this will be a great relief to the minds of country practitioners, many of whom, I know, have lost important clients owing to these men, capable enough, I admit, to look after sick horses under the direction of a veterinary surgeon; but, unfortunately, these certificates which were issued said nothing about the necessity of the men being under the direction of a veterinary surgeon, but merely stated that they were competent to look after sick horses.

The PRESIDENT: I am sure this will be very satisfactory news.

Examination Committee.

Mr. MULVEY, as chairman of the committee, read the report of the committee, and moved that the minutes of the meeting held November 30th be adopted.

Mr. VILLAR seconded the motion.

The report stated that the committee had met on November 30th, when a letter from the Solicitor was read with regard to the certificate of Mr. Owen, which had been referred to him for investigation. The committee confirmed the opinion of the Solicitor that the certificate could not be accepted, as it did not include Latin, algebra, and geometry. The committee had had before it fifteen educational certificates for consideration from England and Scotland, and passed them all with the exception of one from Mr. Bolton, which the committee ordered to be included in it.

The report was adopted.

Mr. MULVEY read the report of the meeting of the Examination Committee, held on January 12th, and moved its adoption. The report stated:—At an Examination Committee held on the 12th inst., the Secretary was requested to inform Mr. H. X. Turnball that his educational certificate would not admit him to the College inasmuch as it did not comprise the required subjects. The committee recommended to the council that there be no examination held under the three years' course after the 1st January, 1899.

Mr. MASON seconded the motion for the adoption of the report.

Mr. COPE: I have taken the opportunity of reading over our bye-laws, and I have come to the conclusion that it will be utterly impossible for us to adopt what has been proposed. The bye-law says in the third schedule, "The diploma of the Royal College of Veterinary Surgeons shall be awarded to students admitted to a recognised school before the 31st January, 1893, after they have passed three professional examinations." There is no limit in the bye-law whatever as to the period men may continue their professional studies; and it seems impossible for us to go behind our bye-laws unless there is some power to alter them.

Mr. MULVEY: I may point out that if this resolution is carried the bye-law will have to be altered.

Mr. COPE: It seems to me that at the present moment there is a compact between the Council of the R.C.V.S., the schools, and the students, which we cannot possibly go behind without giving the matter serious consideration.

Mr. BARRETT: I rise to support the remarks that have fallen from Mr. Cope. I submit we have no power to pass a resolution of this kind at all. I was under the impression that at our meeting yesterday we decided the matter should be deferred for the present. I think you, sir, asked whether we had power or not, and an opinion was given that we were not entitled to pass a resolution of this kind. I am surprised that Mr. Mulvey should advocate the controversy of our bye-law on the pretext that it will be altered afterwards. That is the position which he takes and which he seriously asks us to accept. As sensible men I hope we shall do nothing of the kind.

Veterinary-Colonel LAMBERT: Can we have the opinion of the solicitor on this point?

The PRESIDENT: He is not here.

Veterinary-Colonel LAMBERT: I had some conversation with him last night, and he appeared to be in very great doubt about the matter. I think we should be very careful in abrogating a bye-law to which we have got the agreement of a body of men who have taken up this profession. It requires great consideration before we upset it, and we should not do so without very strong reasons indeed. I think we ought to take the opinion of the teaching colleges.

Mr. DOLLAR: I would point out that the alarm which has been manifested at the other end of the table, and which has given rise to so much discussion, is quite unfounded. What Mr. Mulvey has done is to embody only a recommendation. A recommendation is nothing more or less than a suggestion, and a suggestion may be otherwise described as a pious expression of opinion. If we propose to act on this recommendation it will be a different thing. Doubtless if the Council desires to alter the bye-law which is threatened, or to introduce a new bye-law, a bye-law will be introduced in the proper way, and will be suspended for three months, and may then be argued out. All that has been done is to recommend that a certain course be adopted. The Council cannot contravene its bye-laws, and I do not think it has any intention of trying to do so.

Mr. MULVEY: I had no idea or intention of contravening any bye-law. This subject was simply put down here in order that it might be ventilated before the Council and an expression of opinion obtained. It is the proper way of doing these things, and if the Council decide that this alteration should take place, steps will be taken to alter the bye-law and a resolution passed in a proper and formal manner.

Mr. BARRETT: Will Mr. Mulvey kindly read the resolution again?

Mr. DOLLAR: There is no resolution, it is simply a recommendation.

Professor DEWAR: It will not do the students any harm to know that they need not expect that they can go on indefinitely, but that their studies must be ended at some time. There is another matter connected with the Examination Committee which I should like to bring before the Council. The members of the committee who were present last night, will remember that I expressed some disappointment at being called away from Scotland to look at a single certificate.

Mr. MASON: I am very pleased to hear those sentiments from a representative of one of the schools.

A motion for the adoption of the report was agreed to.

Finance Committee.

The SECRETARY read the report of the Finance Committee.

Mr. TRIGGER: As Chairman of the Finance Committee, I beg to move the

reception and adoption of the report. I ask the Council to make note of one important matter which is suggested, viz., that the income from invested funds shall for the future be kept separate and be put to capital account. Of course, interest will be equally available for use. We shall be able to show our financial position much more clearly if we keep our dividends and consols in separate accounts instead of mixing them with the examination fees.

Mr. LOCKE seconded the motion for the adoption of the report, which was agreed to.

Mr. BARRETT: Has the committee discussed the question of our liability for income-tax?

Mr. TRIGGER: We are not taxed on our income, but on our property—that is our building.

Court of Examiners.

The SECRETARY read the results of the recent examinations in London and Scotland.

The SECRETARY read the report from Vet.-Col. Walters, chairman of Class A examination, which stated that a considerable number of the candidates examined were men who had been previously rejected. The examiners had no special remarks or suggestions to offer.

The SECRETARY read the report of Mr. J. Roalfe Cox, chairman of Class C, three years' system, and Class C, four years' system. The report stated that the examiners had agreed that it was desirable to add to the following recommendations:—"(1) That better and fuller supervision of the written examination should be carried out (to prevent copying). (2) That where possible, the men who had been examined orally be prevented from communicating with those who are to be examined at the same sederunt. (3) To draw attention to the illiterate character of a few of the papers."

Mr. FRAZER: I think Mr. Cox ought specifically to indicate which examination he refers to, as it is a serious charge to make.

Mr. SIMPSON: I think it is only right to say that copying is absolutely impossible so far as London is concerned. The men are about 3ft. 6in. apart, and are watched.

Mr. BARRETT: The question of copying is a matter of opinion. I was present at one examination with Mr. Simpson, and I was distinctly of opinion that men were able to copy, and did so.

Mr. SIMPSON: Attempted!

Mr. BARRETT: And did.

The PRESIDENT: As your representative at the examination I may state it is my firm conviction that not one single word could have been copied. The room was sufficiently large to examine twice as many men with comfort and security. What Mr. Cox says connot possibly refer to anything which occurred on the Thames Embankment.

Mr. MULVEY: I can confirm every word you have said with regard to any chance of copying in London. I have attended every written examination except one, and I can positively declare that it was absolutely impossible for any copying to take place, and I may say it never has taken place. I have seen several attempts, but it never has been carried out.

The PRESIDENT: If there has been copying we must find out where it has occurred.

Professor EDGAR: It might have been argued that it was impossible for a convict to escape from Dartmoor, but that the fact that a man has done so is better evidence than all the arguments from a theoretical standpoint. If the examiners are prepared to submit the evidence of copying to the Council we shall be in a better position to judge.

The SECRETARY read the following letter from Mr. Harry Olver :—

On behalf of the "C" Practical Board of your Examiners, I have the pleasure to report that the recent December examination passed off quite satisfactorily; that, as usual, every assistance was given us at the various centres by the College authorities, and that in Edinburgh the cattle section held their part of the examination at the abattoirs, where a sufficient supply of cattle and sheep were provided, thus making this part of the examination on a par with that held in the other centres. The average pass was scarcely as high as usual, the students lacking the necessary practical knowledge. A portion of the parturition instruments asked for has been supplied.

The SECRETARY read the following report from Professor Duguid, Chairman of the Final Examination Class "D," four years: "The results of the recent examinations held in London, Edinburgh, and Glasgow, were, from the examiner's point of view, satisfactory; 25 candidates presented themselves, 17 of whom passed and eight were rejected.

The SECRETARY read the following letter from Professor Edgar :—

I beg to report for the information of the Council that at the request of the President I attended the Class "D" examination, held at the Royal Veterinary College, Camden Town. The examination as a whole was conducted with harmony and precision. Two candidates were under examination simultaneously with each pair of examiners. The oral examination was conducted within the prescribed hour, but the students had not actually finished this examination in that time. An undue proportion of time was devoted to the examination of horses as to soundness. One student was three-quarters of an hour examining the horse and writing the certificate, leaving only a quarter of an hour for the whole field of surgery. This, however, had some measure of compensation, as the examiners generously worked the man overtime. This arrangement, while contrary to the rules of the Council, is an advantage to the students, and an evidence of patience and courtesy in the examiners. The examiners in medicine appeared to be very much handicapped in testing the clinical experience of students, as they were supplied, with the exception of one case, with healthy animals only. There is possibly some reasonable difficulty in obtaining diseased oxen, sheep, or pigs, but it is more than strange that in the largest horse infirmary in the British Islands, with close upon a hundred sick animals surrounding the examiners and students, no arrangement can be made in favour of the examiners in medicine, while sound and unsound horses are obtained for the surgical section. I have not attended a Royal College of Veterinary Surgeons' Examination in surgery for eighteen years, but, with the exception of a chloroform muzzle, I did not note any particular advance or change either in instruments or operations. The examiners on meat inspection would seem to indicate that the population of London is fed on giblets, there being only internal organs and a mammary gland supplied for examination. One of the examiners informed me that an effort had been made to secure some carcase flesh for the examination, but without success. Both examiners pointed out the disadvantage at which they were placed (as compared with Edinburgh) in making the examination a practical one.

The SECRETARY read the following letter from Mr. Elphick :—

I have to report that I attended at the written portion of the examination held in the Oddfellows' Hall, Edinburgh, on December 19th, 1897. The whole of these students were prompt in their attendance and beheved very well, except that one or two were cautioned for talking. The arrangements made by the secretary were very satisfactory.

Mr. SIMPSON: I beg to move—"That a vote of thanks be accorded to the members of all the schools for the assistance given to the R.C.V.S., during the time the examinations were being conducted."

Mr. MULVEY seconded the motion, which was agreed to.

Fellowship Examination.

The SECRETARY stated that an examination for tne Fellowship Degree was held on Saturday, December 11th, 1897, at which seven candidates presented themselves. The theses of three were accepted, and they were allowed to

proceed with the written and oral portion of the examination. The following gentlemen passed and received their diplomas:—Professors J. McLauchlan Young, W. Webb, and J. Brand.

The PRESIDENT: There is no report from the Fellowship examiners.

Mr. MULVEY: I beg to move,—"That the reports of the examinations and the whole of the examiners be relegated to the Examination Committee for investigation, with special instructions as the alleged misconduct with regard to copying at the written examination."

Mr. DOLLAR seconded the motion which was agreed to.

Notice by Mr. Dollar.

Mr. DOLLAR: The matter which I have undertaken to introduce can be disposed of in a very few words. The International Congress of Hygiene and Demography, which was held on the last occasion at Buda-Pesth in 1894, will again assemble this year in Madrid between the 10th and 17th of April. The objects of the Congress are very well expressed by its title, therefore I will merely tell you in a few words the position which the Government of Spain is prepared to take up. I have here a few pamphlets. The opening pamphlet says: "Her Majesty the Queen Regent, on behalf of her august son King Alphonso XIII. has been pleased to accept the patronage of the Ninth International Congress. The Government gives it the necessary protection; the Madrid authorities are prepared to accord the most cordial reception to the illustrious guests who will on this pleasing occasion visit us; and the organising committee will also do their best to acquit this country of the engagements taken three years ago at Buda-Pesth. This is the first time that an assembly of such importance as the International Congress of Hygiene and Demography is to be held in Spain, and every one of us is ready to demonstrate that notwithstanding the political convulsions and wars that for so long a period have mostly absorbed our energies and our wealth, the care of public health and the love of science, as far as the study and acquaintance with every progress is concerned, are on a level with the superior culture never so well understood as at present.

The proposition I have to make is that inasmuch as this Council was on the previous occasion represented by the President as a delegate, a similar course should be followed on the present occasion. The Congress is really a very important one, and the Royal College of Veterinary Surgeons now takes so great an interest in all matters of scientific research, that it might very well be represented on the present occasion. I have great pleasure in proposing that the College be represented by its President, Professor Penberthy.

Mr. VILLAR: I have much pleasure in seconding this proposition, as I believe there has been a direct invitation from the authorities in Madrid to the officers of the College. If we send our President we shall be following the precedent established when the meeting was at Buda-Pesth; and I am sure we all feel we could not get a better man to represent us than Professor Penberthy.

The motion was agreed to.

Mr. WRAGG: I presume the Council intends to follow the precedent adopted on the former occasion, and I move that the expenses of the President be defrayed out of the College funds.

Agreed to.

The PRESIDENT: I have to thank you very much for the compliment which you have paid me. I can only say that I will do my best to represent you. I will promise you that I will not tire the Congress by long speeches in Spanish. English, French, and Spanish are the official languages to be

spoken, and I will do my best to make myself heard, at any rate, in the mother tongue.

Motion by Mr. Barrett.

Mr. BARRETT: I rise to ask the permission of the Council to move the motion standing in my name, of which I have given due notice in pursuance of the bye-laws under which we are at present governed. I think you will agree with me when I say this is a subject which may well demand your careful attention, and though, perhaps, unfortunately in our earlier discussions to-day we drifted somewhat into troubled waters, I trust that with regard to this matter we shall consider it calmly and judiciously, inasmuch as it is a subject of great importance. My motion is as follows :—"That the Council may relieve a student or intended student of one or more of the subjects of the professional examinations, provided the Council is satisfied that such student or intended student has received an adequate training and passed a sufficient examination in the subject or subjects in respect of which relief is sought."

Mr. TRIGGER: May I ask if this motion has been suspended ?

Mr. BARRETT : Yes.

Mr. TRIGGER : I submit that this is an alteration of a bye-law, and can only be taken at a special meeting.

Mr. BARRETT : It is not an aleration of a bye-law, but a proposed new bye-law ; that is to say, if this motion is approved by you to-day it will become a bye-law.

Mr. SIMPSON : I would point out that in the margin of either our Charter or our Act it says, " No addition or alteration of any rule or bye-law shall take place unless," so and so. This motion, as Mr. Barrett says, is to become a new bye-law, and it will be necessary, I submit, to suspend it for three months, because a new bye-law requires such suspension.

The PRESIDENT : This will have to be suspended for three months after the termination of this meeting.

Mr. DOLLAR : It is my desire to clear the matter up. The usual custom in a case like this is that a member intending to alter a bye-law shall announce his intention at one of the quarterly meetings. The notice having been given the bye-law is suspended for three months and comes up for discussion at the next quarterly meeting. If it is adopted it has to be confirmed at a special meeting to be held within fourteen days. Mr. Barrett will be quite in order in announcing his intention to move his motion, but not in asking us to discuss it, as it must be suspended for three months.

Mr. BARRETT : I would ask my friend to turn to the minutes of the meeting held on the 1st of October, 1897. He will there see that I did give notice of my intention to move this motion, and it has already been suspended for more than three months.

Mr. DOLLAR : Are you quite sure of that ?

Mr. TRIGGER : If this an alteration of a bye-law——

Mr. BARRETT : It is a motion to adopt a new bye-law.

Mr. TRIGGER : Then it cannot be taken at anything but a special meeting of the Council. I must ask the President's ruling on the point.

Professor MCFADYEAN : We have not had notice of this to be brought up at a special meeting, and it is therefore irregular.

Mr. SIMPSON : With a view to trying to make this regular could we not, by a resolution of the Council, resolve ourselves into a special meeting, because I think it is a pity that any matter which a member takes the trouble to bring before the Council, honestly believing he is in the right (personally, I do not think Mr. Barrett is), should not be disposed of ? If we resolved ourselves into a special meeting we could dispose of the matter.

The PRESIDENT: I am afraid the fact that this has been given notice of to come on here, and is not on the agenda of the special meeting, would prevent us from doing what Mr. Simpson suggests.

Mr. BARRETT: It never occurred to me that this point would arise. I merely suspended my motion in the usual way, and left it to the President or the Secretary to place it on the agenda of the special meeting. It is not the duty of the mover of a resolution to place it in any particular part of the agenda paper. I am not specially desirous that this motion should be discussed at the meeting to-day, and if it is the wish of the Council the matter can stand over for three months.

Professor MCFADYEAN: I do not think it is a matter of choice.

Mr. BARRETT: No doubt you are right. Whether you have the power by special resolution to vote that I go on is a matter for you to consider; personally, I do not think you have.

The PRESIDENT: I have been asked by Mr. Trigger to give a ruling on this point. I think it is *ultra vires*. We can neither discuss the matter at the ordinary meeting nor at the special meeting.

Mr. BARRETT: I ask you not to rule that because the motion has been suspended for three months. There is surely no ground for that assertion. I gave notice of my intention to move it at the last quarterly meeting.

The PRESIDENT: It has been put in the wrong part of the agenda paper, inasmuch as it involves an alteration of the bye-laws.

Mr. FRASER: That may be a clerical error on the part of the secretary.

The PRESIDENT: It is an error all the same.

Mr. LAWSON: How is Mr. Barrett to avoid that?

The PRESIDENT: Mr. Barrett is to avoid that by altering the constitution of our establishment. That is the only way I know of, or can suggest, by which he can alter it.

Professor MCFADYEAN: The matter will come up at the next meeting?

The PRESIDENT: Yes, certainly,

Mr. BARRETT: I do not think the secretary should have placed this on the agenda paper where it is; but I submit to your ruling, sir, most unreservedly, and ask to be permitted to withdraw my motion to-day, and bring it up at the next special meeting of the Council.

Mr. DOLLAR seconded the proposition, which was agreed to.

Votes of thanks to Delegates.

The PRESIDENT: Before we close this meeting I should like to say that I think the thanks of the Council are due to those gentlemen who took part in the regulation of your examinations. To those gentlemen you impart a very important duty. As one of those who had attended the English examinations I can say that they have worked in your interests and in the interests of the College very attentively. Delegation to the examinations is by no means a sinecure. It is an extremely important office, and the Council is greatly obliged to those gentlemen. I have very great pleasure in moving "That the best thanks of the Council be given to the several delegates who attended the recent examinations."

Mr. ABSON seconded the motion, which was agreed to.

Obituary.

The SECRETARY read the obituary list.

On the motion of Mr. MASON, seconded by Mr. MULVEY, it was resolved that a letter of condolence be sent to the friends of the late Mr. Perrins, an ex-member of Council.

Special Meeting.

The Council then resolved itself into a special meeting, the same members being present with the exception of Mr. Elphick.

On the motion of Mr. LAWSON the minutes of the last special meeting were taken as read and confirmed.

Mr. DOLLAR moved that bye-law 8 be altered so as to read as follows:—

> Prior to the general business of any General Meeting of Council being entered upon, the minutes of the preceding general meeting shall be read, or if a majority of at least three-quarters of the members present shall think fit, shall be taken as read. At each Special Meeting of Council the minutes of the preceding special meeting shall be read, or in the foregoing conditions shall be taken as read.

He said that the object of the motion was really to prevent the necessity of the minutes being printed and circulated as at present, thus saving expense, while retaining the saving of time by avoiding the obligation of having the minutes read to the Council. As a safeguard he had inserted the provision that three-fourths of the Council must be unanimous, otherwise the minutes would have to be read. There was the serious point in connection with the matter that if the proposed alteration of the bye-law were adopted and carried out the Council would accept minutes without having actually seen them at all. Although that was frequently done by public bodies, it was a point worthy of serious consideration. He had been in doubt in framing the motion whether he should say seven-eights instead of three-quarters, for in a case of that kind the rights of the minority should be most strictly guarded.

Mr. ABSON seconded the motion.

Professor DEWAR asked the costs of the printing of the minutes.

The PRESIDENT: 29s. four times a year, or more if there are more meetings.

Professor EDGAR thought the Council should most seriously oppose the motion. It was calculated to allow the introduction of a lot of matter which had never been before a large section of the Council, and never had received their attention at all. Why should they gratuitously assume something had been read which had not been read! He did not see the necessity of the motion when the minutes were printed and circulated at so small a cost as 30s. a quarter.

Mr. DOLLAR said he was quite indifferent as to the fate of his motion. He had brought it forward because he had understood it was the general wish that relief should be afforded. It was rather contrary to his own private views.

The PRESIDENT thought the matter was a very serious one.

Mr. DOLLAR said that on the understanding that he had introduced the motion solely with the view of meeting what he considered to be the desire of the Council, and of safeguarding the interests of the treasury department, he would withdraw his motion, with the consent of his seconder and the Council.

It was agreed that the motion should be withdrawn.

Notice of Motion by Mr. Mulvey.

Mr. MULVEY moved—

> To amend bye-law 67 by inserting the words 'for one term of not less than eight weeks' between the end of line 4 and the beginning of line 5 of the bye-laws as printed in the Register.

He said that the necessity for the alteration had arisen from the fact that the examinations in England and Scotland were now held at different periods, but so close together that it was possible for students, after having failed at

one place, to go up again at another without having attended any college for instruction in the interval.

Mr. SIMPSON said that for the purpose of hearing the subject discussed he would second the motion.

Professor EDGAR thought that Mr. Mulvey would have to show very strong proofs of his contention before asking the Council to pass his resolution. He foresaw another difficulty with regard to the terms. At present they had no definition in the bye-law of what a term was. They had a clear definition of session, viz., thirty weeks, but none of a term. If they now decided that a term was eight weeks, it seemed to him they would be opening the door to possible difficulties.

Mr. MULVEY said that a short time ago certain students were rejected at an examination in May, and presented themselves in London for re-examination in July, while the Scotch schools were not open during the interval. The obvious fact was that they had no further instruction.

The PRESIDENT: Did they pass?

Mr. MULVEY: I do not know.

Professor EDGAR thought that evidence should be forthcoming of the direct accuracy of Mr. Mulvey's position, because, if it were true, there had been a fraud on their bye-laws. The secretaries ought never to have been guilty of allowing students to present themselves for examination with a fraudulent certificate.

Professor MCFADYEAN said it was quite possible that the circumstances mentioned by Mr. Mulvey did transpire without any bye-law having been violated. The bye-law said that when a student was rejected he must study in the interval between his rejection and his next presentation in order to qualify. Certain students were rejected in the middle of May at Edinburgh last year; they studied from the middle of May till the middle of July, and he, in strict conformity with the bye-laws, had certified them as eligible. He understood, however, from Mr. Mulvey that there were certain students rejected in May who did not attend any college in the interval at which there was an open session, but presented themselves in July. He did not know whether that was so or not. He was not even prepared to say that if that were so a gross fraud had been perpetrated.

Mr. FRASER said he was curious to know why Mr. Mulvey had pitched on eight weeks.

Mr. MULVEY said he believed there was one short term which only lasted eight weeks. He would alter the word "term" to "period."

Professor EDGAR said he would withdraw his objections if that were done.

Professor DEWAR pointed out one effect of the motion which he thought Mr. Mulvey had not contemplated. Students rejected at one examination need not return to their studies till eight weeks before the next examination.

Mr. WRAGG said that was a matter for the schools.

Mr. Mulvey's motion was negatived by seven votes to five.

Motion by Mr. Wragg.

Mr. WRAGG moved the following alteration of bye-law 16:—

> The Council shall prepare an abstract of their proceedings up to the 30th day of April in each year, together with a statement of the funds and property of the College, which shall be read at the annual general meeting and printed and supplied gratis to members of the body corporate.

He said it simply altered the date of making up the accounts from the 1st to the 30th April. By so doing, no difference in the account would be made at all, as there was no money spent in April, and the banker's book which

showed the balance would appear on their balance-sheet, and the accounts would be in a much more satisfactory position. It stated in bye-law 16 that the accounts should be made up to the 1st April, when, in fact, for fifty odd years they had included in the balance-sheet the accounts which had been passed by the Council at the Council meeting in April.

Mr. FRASER seconded the motion, which was agreed to.

Motion by Mr. Villar.

The following notice of motion was down in Mr. Villar's name,—

> To substitute in Examination D, paragraph 2, for one hour the words "not less than sixty or more than ninety minutes."

Mr. VILLAR said that he had learned, during the three months his notice of motion had been suspended, that the particular paragraph was under the consideration of the Examination Committee. He therefore withdrew his motion by permission of the Council.

On the motion of Mr. BARRETT, seconded by Mr. WRAGG, a vote of thanks was accorded to the President for his conduct in the chair, and the proceedings terminated.

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

THE quarterly meeting of this Society was held at the Grand Hotel, Manchester, on Thursday, December 2nd, 1897. Tea at 5 p.m., business at 6 p.m. Present: The President, J. H. Carter, Esq., in the chair. Messrs. W. A. Taylor, W. Woods (Wigan), J. B. Wolstenholme, Jas. King, J. W. Ingram, R. O. Stafford, E. Faulkner, W. Noar, G. H. Locke, Alfred Holburn, R. C. Moore, F. W. Hall, J. McKinna, Joseph Abson, S. Locke, A. Munro, W. Dacre, H. C. Harrison, Rd. Barker, Jas. Laithwood, T. Hopkin, R. C. Edwards, P. Gillespie, Alex. Lawson, Joseph S. Carter, Robert Ward, George Morgan, H. D. Chorlton (hon. sec.), and David Wyllie, visitor.

The SECRETARY announced letters of apology for non-attendance from Professors Williams, McFadyean, Penberthy, Messrs. Hughes (Oswestry), Jas. Marshall and G. Gartside Mayor.

The PRESIDENT stated that he had received a telegram from Mr. Darwell, also apologetic letters from Messrs. Hughes (Oswestry), and W. Packman (Bury), for non-attendance.

The minutes of last meeting were taken as read on the motion of Mr. W. DACRE, seconded by Mr. E. FAULKNER.

New Members.

Mr. William Brooks, M.R.C.V.S., Whitefield, was elected a member of the Association upon Mr. NOAR'S proposition, which was seconded by Mr. W. A. TAYLOR.

Mr. W. J. Fletcher, M.R.C.V.S., Wrexham, was elected upon the proposition of Mr. NOAR, seconded by the PRESIDENT.

Messrs. J. Rogerson, M.R.C.V.S., Blackburn; Charles Ward, M.R.C.V.S., Lancaster; Joseph Kendall, M.R.C.V.S., Barrow-in-Furness; and Joseph T. Potter Carter, M.R.C.V.S., Liverpool, were also elected upon the PRESIDENT'S proposition, which was seconded by Mr. S. LOCKE.

Mr. Richard Barker, M.R.C.V.S., Middlewich, was elected upon the proposition of Mr. LAITHWOOD, seconded by Mr. W. A. TAYLOR.

Mr. B. Sumner, M.R.C.V.S., of 20, Hatton Garden, Liverpool, was elected upon Mr. TAYLOR's proposition, seconded by Mr. E. FAULKNER.

Mr. LAITHWOOD nominated for membership Mr. Ben. Ferrie, M.R.C.V.S., of Stockport, and Mr. E. A. Saxton, M.R.C.V.S., of Nantwich.

Election of Office Bearers for 1898.

The PRESIDENT proposed Mr. J. McKinna as his successor for the ensuing year. This proposition was seconded by Mr. Abson, and supported by Mr. Faulkner, when it was carried unanimously.

Mr. MCKINNA said he must thank them very sincerely for nominating him as President of the Association. The position was an honourable one, but he would endeavour to the best of his ability to perform the duties which devolved upon him, and to uphold the dignity of the Association.

Mr. W. A. TAYLOR proposed Mr. Abson as vice-president, and Mr. McKinna seconded.

Mr. W. A. TAYLOR proposed Mr. Noar as vice-president, and Mr. Wolstenholme seconded.

Mr. J. H. CARTER also a vice-president.

Mr. G. H. LOCKE was elected hon. secretary for 1898 upon Mr. W. A. Taylor's proposition, seconded by Mr. Dacre, and supported by Mr. McKinna.

Mr. WOLSTENHOLME was re-elected Treasurer for 1898 upon Mr. J. H. Carter's proposition, seconded by Mr. Abson, and supported by Mr. Taylor.

Mr. DACRE moved, and Mr. ALEX. LAWSON seconded, the re-election of Messrs. Faulkner and Jones as auditors.

Specimens.

Mr. J. B. WOLSTENHOLME exhibited a large aneurism of the renal artery of an aged carthorse, which had died suddenly from rupture of the same. The animal at the time was standing in the street, and had undergone no particular exertion that day. The coats of the vessel were much attenuated, and were also affected with atheroma. As far as his experience went, aneurism in the horse, excepting that form produced by the irritation of certain parasites, was exceedingly rare, and death from rupture of aneurism was also very uncommon.

Mr. WM. WOODS (Wigan) said it was not by any means accepted that atheroma existed at all in the horse, but he had no doubt whatever that it did exist, and his opinion was confirmed by Mr. Wolstenholme's case, which was very useful as an example of atheroma.

The SECRETARY, in exhibiting the right humerus of a five-year-old cob, explained that the animal was with some horses in a field, and was seen to be going all right across the pasture away from the others, when all at once it reared and squealed, the right leg dropping down suddenly. The man witnessing the occurrence could not account for it, and he, Mr. Chorlton, thought he would like the opinion of the members as to the cause of the breakage. Externally there was no mark whatever of any kick. The bone appeared to consist of an abnormal amount of cancellus and a deficiency of the compact tissue.

Mr. CARTER, the president, submitted a portion of intestines taken from a dog, which, when received into hospital on the 27th ult., was noticed to be badly affected with jaundice. It was treated in the usual way, viz., an aperient to begin with, followed by mustard pack and calomel. The animal, however, got into a weak state, and he administered a mild solution of whisky and water, but in spite of this it died on the 29th ult. *Post-mortem*

revealed not only a single intussusception, but what he should call a double intussusception.

The other case was that of a small collie dog, brought to his place for treatment, when it was found to have its head twisted to one side, its nose pointing upwards. Upon inquiry he elicited the fact that it had been kicked (with slippers) on the side of the head. He applied a severe blister on the converse side of the neck, but on the fifth day the animal was completely paralysed and died. The peculiarity of this case was the nose pointing heavenwards.

Mr. J. KING (Superintendent of the Manchester Abattoirs) showed specimens as follow: 1. Tongue and heart of a pig affected with cysticercous cellulosæ. 2. Piece of lung of a cow, which he tested with tuberculin about a month ago. 3. Tuberculous kidney of a cow. 4. Three specimens—he could not say what they were, but he brought them as a curiosity—taken out of the chest of a two-year-old heifer. The butcher said to him that he had got a heifer with three hearts hanging from the lung. One piece was attached to the pericardium.

Mr. LAITHWOOD submitted a substance that he removed some years ago from an enlargement above the right eye of a cob. This enlargement, which was about the size of his fists, had been there for something like three years, half of which time pus had discharged from the upper portion of it. The substance, of the nature of dentine in an ordinary molar tooth, he thought, was attached to the upper portion of the zygomatic arch, and it was peculiar how it had obtained that position. In his opinion it must have done so at a very early date, and developed to the size now produced, setting up irritation assisted by the bridle, and eventually causing suppuration. After removing this and treating it as an open wound, it healed up in a very short time with no after resultss as far as he knew.

Mr. W. A. TAYLOR in submitting the fractured femur of a pony recalled the visits of some of the members, who ventured their opinions in the way of a diagnosis of a somewhat peculiar case of lameness in this animal. For the information of those who did not see it, he stated that the pony was a small dun one—11 or 12 hands high—and, he thought, five years old. It was lame on the near hind leg, and when seen by his professional *confrères* was in such a lean condition as to render a diagnosis—as far as a live animal could contribute to it—as easy as possible. Continuing, Mr. Taylor said, about a week prior to his being called in on January 21st, 1897, the pony was found cast in the stall: it was released and the halter shank was not noticed to be broken. The animal had been treated by the owner with warm fomentations and embrocation until professional aid was sought. The limb was found rigid; neither flexion, not extension taking place in the pony essaying to walk; and the toe dragged. The diagnosis was luxation of the patella with injury in the neighbourhood of the hip joint. There was also considerable tumefaction in in the vicinity of both joints. The point of the hock was turned inwards and the toe outwards. There was a little shortening of the limb. Dislocation of the patella reduced only to recur on the animal attempting to walk. Frequent reductions were made and blisters applied to stifle, but the only progress recognisable was that the pony could walk and extend the limb. It could not, however, flex it. Since the accident the animal had lain down, but was unable to rise. He had no doubt that the members who had seen the case would be interested in the conditions found on *post-mortem*. He might add that the pony was cast and force was used to a great extent to produce flexion of the limb but it was found to be impossible. On making a *post-mortem* and separating the soft structures from the hard it was discovered that there had been a vertical fracture of the head of the femur. Also luxation of the patella in an upward and inward direction.

Mr. Wm. Woods (Wigan) said that with respect to the pony's leg being shorter or not shorter it had been 1¾ inches short, and that there had been dislocation of the joint.

Mr. W. A. Taylor exhibited photographs of a puppy, which was introduced to him by the editor of the publication called "Our Dogs" as a "Canine Monstrosity," and at his invitation and solicitation Mr. Hall and Mr. Taylor, made an examination of the dog, and wrote the subjoined short description of it for that periodical.

Cross-bred terrier puppy about six months old. This monstrosity, or so-called "lusus naturæ," clearly belongs to the order of monstrosities with a single head and trunk and more than four limbs "melodidymi" (Gurlt).

The plate showing the right side of the monstrosity depicts the extra pair of posterior limbs and a portion of the pelvis. The most prominent joints shown in the illustration are those of the stifle. On the left side may be seen the lower portions of each leg and the feet, and also the external organs of generation. Both legs possess apparently all the bones of the hind limb as far as and inclusive of the femur or thigh bone. There is no hip-joint as the pelvis is not entire; there is a portion of floating bone, which appears to be a part of the floor of the pelvis. These extra limbs are covered with skin and hair continuous with that of the lower portion of the right wall of the chest, and they (the limbs) are attached to the puppy by the common integument (skin) blood vessels and other soft structures; there is no attachment in the form of bony union. Distinct arterial pulsation can be felt at the point of attachment. What one may term the puppy is of the male sex, the pendant portion is bi-sexual, *i.e.*, hermaphrodite, and there is a constant dribbling of urine from the organs, clearly indicating the presence of a kidney or kidneys in the pendulous hind quarters, or that there is a communicating channel with the urinary apparatus of the larger and more important portion of the animal. There is no distinct tail, *i.e.*, there are no coccygeal bones—a small reduplication of skin situated in the position where one would expect the tail to be, is the only apology for one. There is no anal outlet. It may be here added that the supernumerary limbs are not, of course, of the slightest use to the animal as a means of locomotion, but a hindrance thereto. The animal is in fair condition. A *post-mortem* examination would, doubtless, reveal more of interest than can be discerned during life. Apart from the anatomical and physiological interest in living specimens of monstrosities of this nature, one's feelings are aroused more in pity than admiration.

Mr. Noar showed a photograph of a fibroid tumour weighing 1lb. 11 oz., from the vagina of a cow.

Mr. Wolstenholme, moved, Mr. Dacre seconded, and Mr. W. A. Taylor supported that the best thanks of the Association be given to the retiring president for the admirable and successful manner in which he had conducted the affairs of the Association during his two years of office as President.

Mr. S. Locke proposed a hearty vote of thanks to the members, who brought pathological specimens, especially to Mr. King.

Mr. E. Faulkner, in seconding the proposition, said nothing could be more interesting than an evening with pathological specimens. The members were all agreed in welcoming Mr. King, who had brought before them some very interesting specimens, and as he had a very fine field for obtaining same, he could without doubt be of great use to the profession.

Mr. W. A. Taylor proposed a vote of thanks to the retiring officers for the work they had undertaken during the past year.

Mr. McKinna seconded the proposition, which was carried unanimously.

SCOTTISH METROPOLITAN VETERINARY MEDICAL SOCIETY.

(*Continued from page* 48.)

MR. JOHN CAMERON, Berwick-on-Tweed, thought it would be out of place to finish the subject that day. There was sufficient material in the paper to provide discussion for two or three meetings. The public health point of view was involved in this question, and he thought it was about time they were laying aside their bashfulness. It was about time they let the public know a good deal more of the condition in which the dairy cows existed which supplied them with milk.

The SECRETARY (Mr. Peter Moir) stated that the subject had been discussed by the society before on more than one occasion. A petition had been sent to the Royal College of Veterinary Surgeons exactly on the lines suggested by Mr. Thompson. If they sent another petition it would just have as little effect as the other one had.

Mr. GARNETT, Windermere, considered that the great means of the spread of tuberculosis was through contagion at the birth, and if it were possible to make anything like an estimate in any one county in the northern portion of England, it would be found that in proportion to the ventilation, so was the proportion of tuberculosis in any one herd. This was a subject to which he had given a great deal of attention, for the simple reason that he thought they had more tuberculosis than any other disease in Westmoreland. Almost every herd they visited had more or less tuberculosis, and it was one they must always be suspicious about, especially when they had lung affections or affections of the bowels, like diarrhœa. The question of ventilation was one of the greatest importance to veterinary surgeons in the treatment of this disease, and it was also one of the means, although a slow one, of eradicating the disease. In the North of England the proportion of air space in the byres was no more than between 200 and 300 cubic feet per cow. He found that Newcastle, however, out of the whole of England, Scotland, and Wales, was the only town that had had the courage to stipulate for a certain area for each cowshed, and not only the cubic space which each cow should have, but they also stipulated the amount of ventilation, and the amount of sunlight or window space that each cow should have. That was an immense advance over the rest of Britain. They had also declared that each cow should have at least one square foot of ventilation, either by a single fanlight through the roof or other openings in external walls. That was one of the principal means of mitigating—he would not say eradicating the disease. The President stated that he had removed tuberculous growths in the mouths of cattle. So far as he (Mr. Garnett) had read, and so far as his experience went, he had never seen or heard of any tuberculous growths within the mouths of cows.

Mr. CAMERON, Berwick-on-Tweed, said he certainly agreed in the disease being hereditary as well as infectious; there was nothing to separate them.

Mr. CAMPBELL, Kirkcudbright, said he would go out of the meeting no wiser than when he came in. He thought all the men of the profession who had given tuberculosis as well as some other infectious diseases their earnest study had already come to the conclusion that tuberculosis was certainly a hereditary as well as an infectious disease, although they might not find many cases in the young animal. In over 30 years' experience he had never after a careful examination found a case of genuine tuberculosis in a calf, although he had particularly examined them out of cows that were just going with tuberculosis, in fact, which had never recovered after parturition. He could endorse a great number of the statements of his old friend Principal Williams. They had proved to demonstration that the bacillus, or they would say the

spore, of this poison would develop itself rapidly in a suitable soil. On the other hand animals, although born of tubercular parents, when put under advantageous circumstances—that was, if they were well fed and under hygienic principles—were quite able to throw off the effects of the poison that they had inherited from the mother. Thorough ventilation and hygienic principles formed a great factor in the mitigation of the disease. He had very little faith in the efficacy of tuberculin as a test. If veterinary surgeons advised their clients in regard to air, space, and hygienic principles, he thought they would have less tuberculosis in the country.

Mr. R. RUTHERFORD, Edinburgh, said he could not enter into the discussion of this question from the point of view of one who had had much practical experience of it in a breeding district. He had never been in a breeding district in his life, but it appeared to him there was very strong collateral evidence which enabled him to ask the question, Why should it not be hereditary? Because it was not found immediately or shortly after birth in the animal, why should it not be hereditary? He asked them to consider how many diseases of the horse were undoubtedly hereditary but did not appear at birth, and very often did not appear till several years afterwards. He would take, for example, stringhalt, which affected the nervous system of the horse. They seldom saw that in the foal, and it did not appear until the horse was a yearling or two or three years old. Cataract was another disease which did not appear in the foals. At one time that disease was very common among the horses bred in Ireland, but the breeders both there and here took care not to breed their horses or mares which had been affected with cataract. That showed it was a hereditary disease, but it did not appear in the youngster. It never appeared until they were five or six years old. In the same way, why should not tuberculosis require a certain period to develop itself?

Professor W. O. WILLIAMS expressed the opinion that hereditary disease meant that an animal was born with a tendency to take on a certain disease in the same way as many of them knew that horses had certain colours. Some men had magnificent moustaches; others had small moustaches; some men never had a hair and their progeny never had a hair. That was what he called heredity. That was not due to an organism. Tuberculosis was a disease which was due to an organism, but unless that organism was in the system of an animal that animal had not got tuberculosis. Consequently he considered that although the animal had the tendency to take the disease it had not got the disease until it had got the germ in its system. It was quite possible that the ovum of the cow or mare might be impregnated with the organism known as the bacillus of tuberculosis, and it might be that the ovum developed into a perfect fœtus, and became saturated with the bacillus of the tuberculosis. That was certainly not hereditary; it might be congenital. It must be introduced into the ovum, because it would never arise *de novo* as a hereditary thing.

Mr. CAMERON, Berwick-on-Tweed, thought the matter should be taken up by the Local Government Board, so that they might make it compulsory to have a veterinary inspection of all cows that supplied the public with milk.

Mr. GARNETT, Windermere, said that a departmental committee of Parliament was appointed in 1888, and unanimously recommended that veterinary surgeons should be appointed in all districts to inspect dairies and cowsheds.

It was unanimously resolved to defer further consideration of the matter till next meeting.

On the motion of Mr. THOMPSON, seconded by Mr. CAMERON, a cordial vote of thanks was awarded to Professor McLauchlan Young for his paper.

A vote of thanks to the chairman concluded the proceedings.

CENTRAL VETERINARY MEDICAL SOCIETY.

(*Continued from page* 39.)

A Continental Twitch.—This, gentlemen, is the form of twitch which is largely used on the continent. It has the advantage that when put on to the upper lip it is not necessary to have a man holding it. If the string is left long enough to go on the ground the operator can place his outer foot on it. If the horse moves by placing the other foot on the string it is jerked tight on the nose ; by this plan the hands are free.

Dental Examinations.—We may desire to examine the interior of the mouth, and not have a balling iron at hand. A very fair substitute can be found in a bit, the cheeks being placed across the mouth and the hand grasping the bit. I learned this from an Afghan horse dealer in the Peshawur bazaar. Also I learned from the same man to examine the teeth by turning the horse's tail to the sun and reflecting the light into the mouth by a piece of looking glass. In England where the sun is not always to be depended upon a bull's eye lantern could be used.

The Cicatrix in Neurotomy.—In the operation of neurotomy it is desirable to leave as small a scar as possible, and yet an inch, or an inch-and-a-half, of the nerve should be removed to prevent reunion. With the following plan a very small incision will suffice. With the point of the knife an incision an eighth of an inch, or even smaller, is made through the skin. A blunt curved needle, such as a bent packing needle, with the point ground off is passed through a layer of the subcutaneous tissue, which is divided on the needle, which is again inserted, and layer by layer the tissue is divided till the nerve is exposed. This is taken up with a blunt hook and divided. The lower end is grasped with a pair of strong forceps, drawn upwards till an inch is brought out, and divided with the scissors, the wound being sutured. If done with proper antiseptic precautions the cicatrix is exceedingly hard to detect. Of course an Esmarck's bandage to render the limb bloodless must be used, and I use chloroform. It is also best to have the edge of the neurotomy knife straight, so that the back and edge converge at an acute angle, to a fine point with which the incision is made.

Poultices.—In cases of accidental pricks from nails in the foot, or suppurating corns, after removing the horn it is almost the universal custom to put the foot into a bran poultice, and, as everyone must have noticed, when the poultice is changed a certain quantity of the bran gets lodged in the hollow from which the horn is removed, and from which it may be, or more frequently is not, picked out. Whether it causes any direct harm, I am not prepared to say ; but I cannot help thinking that stale and sour pieces of bran in connection with a wound cannot do any good, and would be better not there. The plan I adopt is first to envelop the foot in a cloth or duster, and then put it into the poultice so that all the benefit of the heat and moisture is obtained without any of the particles of bran coming into direct contact with the wound. The cloth is changed at the same time as the poultice. I am rather doubtful whether bran is the best substance to apply moisture and heat to the foot, on account of the tendency it has to ferment and turn sour if not frequently changed, which is sometimes difficult to get done, and in parts of the world where it is not obtainable, I have used pads of tow, or, better still, the cotton waste used for cleaning engines, with as good effects. Both these can be kept moist with warm water, and, even if not changed for some days, do not undergo fermentation and give off the peculiar sour smell that stale bran does. I have also used sawdust.

A divided shoe for contracted heels.—I would like to mention a method of shoeing I have seen used in the East for horses with narrow, contracted heels. I speak under correction, but as far as I am aware, I do not think it

is used in England. It is using what is known as a bullock's shoe, or, in other words, a shoe cut in two at the toe—in two halves, with an interspace of about 1-16th of an inch at the point of junction between the two. It, no doubt, is a modification of the jointed shoe, and the French plan of eucasteleur, for which there are many elaborate pieces of apparatus for expanding the heels, a full account of which will be found in Peuch and Toussaint's "Veterinary Surgery." This plan was shown me by Veterinary-Colonel John Anderson, late I.V.S. Bombay Army, and was frequently used by him. I have also had good results with it in India, but I have never had an opportunity of using it in England. At all events, the plan is simple, and may be worth a trial.

An Arab test for in-foal mares.—In the earlier stages of gestation, it is not always easy to say whether a mare is in foal or not, and it is not always desirable to make an internal examination. The Arab plan is to put a few drops of water in the ear. If in foal, it is said the mare will only shake her head; if she is not, the whole body. I do not vouch for the correctness of this, I only mention it for what it is worth; but the Arabs are a nation of born horsemen, and much of their literature deals with equine matters; and I am one who is of opinion that practical hints are not to be despised, no matter from what source they come.

It is usually the custom to employ a rope for a side line to throw a horse with, or, when down, to place round the fetlock to extend the limb with in certain operations, such as neurotomy and firing, when it is desired to get the skin tight. As a rule, a rope answers well enough, but the objection is that it is round, and being made of hemp, hard, and might possibly abraid the skin. It may therefore be desirable to use a flat line, not a round one, and a good one can be made out of flat cotton lamp wick. This can be got nearly any width desired, and if it is not considered strong enough, two or more thicknesses can be stitched together. It can be used for leading and lunging reins, and in India I used it for reins on polo bridles. In that country, playing polo in the summer, the heat is so great that the perspiration runs over one's hands in streams, and leather reins get so wet and slippery that it is nearly impossible to hold a pony with them, whereas with the cotton lamp wick a grip can be obtained. I learned this by seeing a Chinese tailor in Hong Kong using a piece of lamp wick as a driving strap for the wheel of his sewing machine. Although perhaps somewhat foreign to the subject, this annoyance of perspiration running over the hands can be to a certain extent remedied by tying a handkerchief round each wrist, and a little powdered resin in the palm of the hand will give a grip to the rein.

Gentlemen, I am afraid I have wearied you with a number of disconnected facts, and must again apologise for bringing such a paper before you. I thank you for the courteous way you have listened to me, and I have put these small details before you for what they are worth. Some may perhaps be of some use, but I expect most of them are valueless; but as I said I have come here to learn, not to instruct, and I trust that my efforts will only be a lever to start a discussion in which many more valuable details of everyday practice will be brought forward, which to the majority of us are of as much importance as a scientific discovery in medicine or a brilliant surgical operation.

Discussion.

Mr. ROWE, in opening the discussion, said that he had never used iodoform, but employed oil of cloves instead. He described how he bandaged dogs' legs successfully with mill board and the use of glue.

Captain R. MOORE remarked that chinosol was preferable to iodoform, not only because it emitted no smell, but because it was more powerful than

iodoform. He had, too, tried creosote with good effects. It was also odourless. Iodide of starch was useful in cases of broken knees, burns and scalds. He objected to poulticing which, in his opinion, served as a means of conveyance of all sorts of germs.

Mr. T. S. PRICE said he too, like the previous speaker, had given up poulticing in the majority of instances when horses were pricked or had picked up nails. In the latter case his plan was simply to draw the nail. He never removed the shoe at the first start, nor had he recourse to poulticing or fomentations. Nor did he even cut the sole out. He simply drew the nail. Then he procured some carbolic liniment and tow and blocked the wound. The next day if the horse was better he let him alone, and if on the succeeding day the animal had improved he still did nothing. He invariably found in the case of pricks or picking up of nails a carbolic liniment with non-cutting was the best treatment imaginable. As to bandaging dogs for fractured limbs, Mr. Price pointed out that if they applied a gutta-percha bandage to a fractured limb they were likely to do a great deal of harm unless they took the precaution to prick the bandage all over with holes to admit of ventilation. With regard to twitches he employed, he said, an iron twitch half the size of the wooden one produced by Major Nunn. Mr. Price described his twitch which, he remarked, answered very well.

Mr. UPTON pointed out that unless they injected some antiseptic into wounds they were likely to have lockjaw supervening.

Mr. PLACE said he had not given an order for iodoform for the last six months. He used iodine starch mixture instead, and he found it quite as effective as iodoform as well as cheaper. With respect to a syringe for injecting an enema, he had found a simple piece of rubber tubing serviceable and capable of answering all purposes. As to pricks in the feet he, like preceding speakers, had abandoned poulticing as a remedy.

Mr. L. SAVOURNIN observed, on the subject of poultices, that he had found half linseed meal and half bran did not prove so sticky and slimy a poultice as linseed solely.

Professor MACQUEEN said the main desire of the veterinary surgeon was to keep clean the wound with which he had to deal, and it mattered little what agent was used to effect this purpose so long as the end was attained. While he agreed with previous speakers as to the usefulness of gutta-percha as a bandage for a dog's leg after fracture, he pointed out that there was a much more convenient, cleaner, and more surgical-looking splint than this, and that was the material known as poro-plastin. This could be moulded into any form and applied to any leg or any part of the leg. Poro-plastin was probably a little expensive, but apart from the expense there was no objection to it as a splint. It was what humane surgeons used, and, speaking from experience of its use, he considered it was one of the best splints they could possibly have. He had no patience with veterinary surgeons who amputated dogs' legs, and he considered that any practitioner who allied himself with that form of cruelty did not consult the best interests of his profession. In his opinion, maimed dogs should be destroyed—save, perhaps, where a valuable dog was retained for stud purposes. Various suggestions had been made as to the treatment of constipation. A good acting agent was syrup of buckthorn in small doses, or a little glycerine. Adverting to methods of killing rabid dogs, the professor suggested as a convenient and speedy way an injection of prussic acid, but not necessarily in the rectum. Alluding to the twitch produced by Major Nunn, the Professor characterised it as "a most diabolical instrument of torture," the use of which would probably secure the interference of the Royal Society for the Prevention of Cruelty to Animals. Mr. Price's twitch, nine or ten inches long, was much preferable to the formidable instrument shown by Major Nunn. Blinds, of

course, were useful, but some horses, especially well-bred horses, stood much quieter without blinds. A great deal depended upon temperament, and he did not think they could set down rules of procedure for all cases. He did not poultice. Poultices, he considered, were an abomination when not used with discretion. Poultices were now mainly employed to soften the horn. He did not think that with the mere heat or moisture communicated by a poultice, they would have pus unless they had something else; and a much more essential thing than heat, namely, an organism. Professor Macqueen went on to say that if they wanted to soften a hoof at any time, there was not the slightest objection to dressing it over with chloroformed oil. Chloroform had a wonderful power of softening a hoof. If they required a small area of hoof softening for the purpose of an operation, there was no quicker way of doing this than by saturating the part with chloroformed oil. Allusion had been made by Major Nunn to half shoes. These shoes were not new. They were introduced when jointed shoes were introduced. Side lines, such as Major Nunn had described, were not at all rare. Concerning neurotomy, the Major remarked that a small opening should be made. Everybody was agreed that the smaller the opening the better. The mode of performing the operation originated in Germany, and the father of the idea was Professor Nicols. He thanked Major Nunn for enlightening them as to various points. Many of those points were old, but they were all the better for being occasionally reminded of the things that were old.

Mr. BARRETT advocated the use of the syringe against the syphon, and, regarding poultices, he said he had long abandoned their use, with good effects. Recovery had been more rapid, the percentage of loss much lessened, and his clients altogether better pleased since the disuse of the poultice. Where horn had to be removed it was no doubt necessary to apply warmth and moisture. His *modus operandi* was to place the foot of the horse in water as warm as the animal could bear for a short time. Then, when the horn was sufficiently soft, he removed it and applied antiseptic dressings. To assert that wounds were properly treated by mere cleanliness was, to his mind, not satisfactory in the face of abundant evidence that organisms could enter wounds unless antiseptics were used pretty constantly. Adverting to the subject of neurotomy, Mr. Barrett said it seemed to him rather difficult to get at the nerve. As to dogs unmistakably suffering from rabies, he was of opinion that they should be poisoned at the earliest possible opportunity. With regard to blinds, he thought they were sometimes more effectual than twitches. The use of blinds was not attended with pain, and he considered this was the most effective method of restraining a restive horse.

Mr. DOWELL pointed out that a solution of carbolic acid was more drastic and effective in treating the wound on a horse's foot than pure carbolic acid was.

Mr. PORCH mentioned how he formed of a piece of hemlock stem and a pig's bladder an instrument which satisfactorily answered the purposes of a funnel or a syringe. Although he had not abandoned the use of the poultice, he thought harm was done by applying poultices too long. The important point was to know when to stop. In cutting out a horse's foot he was in the habit of using a French searcher. He found nothing else so effectual in reaching the bottom of a prick from a nail. He fired many horses standing, and found blinds as well as twitches very useful, the latter especially in the country.

Mr. PRUDAMES explained that he made a bandage which, he found, retained its firmness almost indefinitely, consisting of chalk and gum water. This was quite as efficacious as plaster of Paris, and was readily removable by a bath of warm water. He had tried chinosol in various forms for several years, and liked it.

Professor F. HOBDAY said that in cases which he had treated with chinosol, he had never found the least trace of pus. He used about ten grains to a quart of water, and found it quite satisfactory. It was not altogether odourless, but gave off a smell like that of burnt custard powder. He had had recourse, with satisfactory results, to treatment with a mixture of iodoform and starch, an account of which he read in *The Veterinary Record.* Both in regard to horses and dogs, he discovered that this method of treatment was far superior to the old-fashioned way; certainly in regard to dogs suffering from burns and scalds. Professor Hobday went on to express his disagreement with Professor Macqueen when the latter said that the amputation of one or more legs of a dog was cruel. Recently he (Professor Hobday) had performed amputation in the case of a very valuable dog which now hopped about like a kangaroo, and had since the operation served a bitch. As to antiseptic surgery, he held that they should apply it as far as possible. The veterinary profession were making great strides in this direction. Concerning the killing of dogs by hydrocyanic acid, he mentioned that after numerous experiments, he found the quickest way to thus kill a dog was by inhalation, if this could be managed. The next quickest way was by injection directly into thorax. The next quickest way—there was merely a difference of seconds—proved to be a race between an administration by the mouth and a hypodermic injection. The mouth was as quick, if not quicker, than a hypodermic injection.

Reply.

Major NUNN, in replying, said the hope he had expressed that his paper would be pulled to pieces, had been fulfilled even beyond his expectations. With regard to the wooden twitch he had shown, he admitted it was a very clumsy thing, made hurriedly by a farrier at Chelsea. It should have been about one-fourth the size. Speakers who took part in the discussion appeared to think that he advocated certain lines of treatment in certain matters. He had, it appeared, failed to make himself understood that he advocated absolutely nothing. All he did was to throw out certain suggestions, and asked whether, in given circumstances, such a course should be pursued rather than another and a different one, while at the same time he mentioned his own methods. Mr. Rowe had mentioned various essential oils in deodorising iodoform. He was obliged to him for the hint. That these other oils were preferable to peppermint never struck him. One of the speakers characterised as almost cruelty the amputation of dogs' limbs. His (Major Nunn's) experience of amputation was in the East where, as they knew, Hindoos had a horror of the destruction of animal life. Mr. Rowe asked about manna. The Major replied that he really did not know whether it was a drug in the pharmacopœia. It was a vegetable product of gum—one of the acacia gums. It was something like gum Arabic to look at. He did not know whether it was mentioned in the British pharmacopœia—it was in Kauffmann's therapeutics. It appeared that the half shoes mentioned were not new. The shoe was simply divided in the centre at the toe. Mr. Rowe asked about monstrosities. Well, he (Major Nunn) had seen a considerable number of monstrosities. In this connection he mentioned that in the Punjab and the lower hills of Cashmere there was a particular breed of sheep with four horns. Speakers seemed to be under the impression, with regard to the examination of a horse by the mouth, that he advocated the use of a particular bit. All he meant to say, however, was that if the balling iron was necessary and one was not at hand, an ordinary bit could be used sideways in the mouth. He merely suggested this as a substitute for a balling iron, He had been misunderstood in saying that in most diseases in dogs a purgative was

required. What he did suggest was that if a purgative was needed he found manna was a convenient thing to give on account of the readiness with which dogs took it. He agreed with Professor Macqueen that a rabid dog should be kept alive if it were known to have bitten anyone, but if it were perfectly certain the animal had not bitten any one he failed to see the object of keeping it alive. He should avail himself of the first opportunity of the hint he had received as to chloroform softening the horn. Mr. Porch had referred to the French searcher. He (Major Nunn) had used that instrument and, in his opinion, it was better than the English searcher.

On the motion of Mr. BUTTERS, seconded by Mr. TAYLOR, a cordial vote of thanks was accorded Major Nunn for his Paper; and the proceedings terminated with thanks to the Chairman.

CONTAGIOUS DISEASES ANIMALS ACT, 1894 and 1896.

SUMMARY OF RETURNS OF OUTBREAKS, for the four weeks ending January 22nd, 1898.

ENGLAND AND WALES.

Pleuro-Pneumonia.	Swine Fever.	Glanders. (including Farcy).	Rabies.	Anthrax.	Sheep-Scab (for month of December).
Outbreaks confirmed 1 Found diseased 1 Slaughtered 76	Outbreaks 132 Slaughtered 2,781	Outbreaks 60 Attacked 84	Dogs 4 Other animals 0 Destroyed 0	Outbreaks 36 Attacked 63	Outbreaks 441

SCOTLAND.

None	Outbreaks 3 Slaughtered 178	Outbreaks 6 Attacked 54	None	Outbreaks 11 Attacked 19	Outbreaks 13

IRELAND (for four weeks ending January 15th).

None	Outbreaks 18 Slaughtered 194	None	Dogs 8 Other animals 0 Destroyed 39	None	None reported

THE VETERINARY MUTUAL DEFENCE FUND.—FINANCIAL STATEMENT, DECEMBER 31ST, 1897.

Dr. Mr. EDWIN FAULKNER, *Honorary Treasurer*, Knott Mill, Manchester, in account with the Fund. *Cr.*

RECEIPTS.	£	s.	d.
1897.			
Jan. 1—To Balance at Bankers	550	10	11
,, Subscriptions received 1897, as per List	117	11	0
,, Bank Interest	5	8	8
	£673	10	7

PAYMENTS.	£	s.	d.
1897.			
June 1—By Balance due to Treasurer	3	8	9½
,, Hire of Rooms	0	10	0
,, Stationery	2	18	6
,, Solicitor's Cost	0	6	8
,, Secretary's Postages and Expenses	1	7	6
,, Treasurer's ,, ,,	1	1	8
,, A. Hastings Farrow, *re* Dowdswell *v.* Farrow	200	0	0
,, Butcher, Litton, and Pownall—Accountancy Charges	5	5	0
,, Balance at Bank £456 18 10			
,, ,, due from Treasurer 1 13 7½			
	458	12	5½
	£673	10	7

We have examined the above written Account, and certify the same to be correct.

18th January, 1898.

ALFRED H. POWNALL, F.C.A.
JNO. B. WOLSTENHOLME.

THE VETERINARY BENEVOLENT FUND.—FINANCIAL STATEMENT, DECEMBER 31ST, 1897.

Dr. Mr. EDWIN FAULKNER, *Honorary Treasurer*, in account with the Fund. *Cr.*

RECEIPTS.	£	s.	d.
1896.			
Jan. 1—To Cash at Bankers	646	12	2
1897.			
Dec. 31— ,, Mersey Docks and Harbour Board, one Year's Interest on Bond for £1,300, at 4 per cent. less tax	50	5	4
,, Mersey Docks and Harbour Board, one Year's Interest on Bond for £600 at 3½ per cent. less tax	22	9	6
,, Manchester Corporation Improvement Committee, one Year's Interest on Mortgage for £900 at 3 per cent. less tax	26	2	0
,, Corporation of Salford, 346 days' Interest on Loan of £600 at 2½ per cent. less tax	14	7	5
,, Bank Interest	1	9	1
	£761	5	6

PAYMENTS.	£	s.	d.
1897.			
Jan. 13—By Cash, Salford Corporation Gas Fund, Loan of £600 at 2½ per cent.	600	0	0
Mar. 27— ,, Cash, Mrs. Carrie Brown	10	0	0
— ,, Cash at Bankers	151	5	6
	£761	5	6

We have examined the above written Account, and certify the same to be correct. We have also inspected the Securities deposited with the Bankers, which we find in order.

18th January, 1898.

ALFRED H. POWNALL, F.C.A.
JNO. B. WOLSTENHOLME.

Legal News.

At Cromer Petty Sessions on Monday, January 3rd, before Messrs. R. W. Ketton (chairman), S. Hoare, M.P., and R. H. J. Gurney, Robert Hedley Sharpen, of Holt Road, Cromer, was summoned on the information of James King Gooch, M.R.C.V.S., of Holt, on behalf of the Royal College of Veterinary Surgeons, for that he, not being on the Register of veterinary surgeons, and not holding at the passing of the Veterinary Surgeons Act, 1881, the certificate of the Highland and Agricultural Society or Scotland, did, on August 2nd, and divers days between June 4th and September 4th, unlawfully use and take an additional description stating that he was a veterinary surgeon. Mr. E. Reeve (Mills and Reeve, Norwich) prosecuted, and Mr. Draycott was for defendant.

Mr. Reeve at the outset said that the penalty attaching to the offence was £20. He read the terms of the Act, and said its framework gave to the Council of the College a quasi-judicial character, as they could only authorise a private person to take up the case. The facts were remarkably simple. Mr. Sharpen, against whom he had nothing whatever to say personally, seemed to have practised in Cromer as a veterinary surgeon, and held out to the world that he was a veterinary surgeon. He would put in the Register of veterinary surgeons for 1897, in which defendant's name did not appear. There was only one person of his name on the list, and that was of his father, who lived at Gresham. That, he submitted, was quite sufficient to prove his case. He should also prove that defendant issued cards describing himself as a veterinary surgeon, and a plate where he lodged bore the same description. Mr. Reeve added that he might say the College did not wish to press the case harshly, but, naturally, those people who had spent a lot of money in studying felt that their preserves should not be trenched upon. He then called

Jane Sarah Cooke, of Woodbine Cottage, Holt Road, Cromer, who said defendant lodged at her house. If any messages arrived she gave them to him, but she could not say whether he practised as a veterinary. A brass plate bearing the inscription, "Sharpen, Veterinary Surgeon," was put up soon after he came. Two cards produced, bearing the same words, were obtained from her house—by, she alleged, false pretences. She could not say whether they related to defendant.

Cross-examined.—The gentleman who obtained them came to the back door, and said he had a friend who wanted some veterinary work done. Witness had no authority to give him the cards, and she had to hunt for them. She had never given cards before. She knew Mr. Sharpen's father, and he attended at her house often, messages being sent there for him.

Harry Alfred Solomon, clerk at Messrs. Mills and Reeve's, said that on December 1st he attended at the house of the last witness, and Mrs. Cooke's daughter opened the door. He received the two cards produced from the mother, the daughter having fetched them. He asked for a billhead and saw one, but did not obtain it.

In cross-examination witness said he did not say he wanted some veterinary work done, his words were, "I have been recommended to Mr. Sharpen as the best veterinary surgeon in the town, can you give me a card to send to a gentleman." He was thereupon asked into the house, and the cards produced were handed to him. On being asked who was the gentleman referred to, witness replied "Mr. Reeve." He was told by Mrs. Cooke that defendant's business had nothing to do with his father's, she was most positive of that. The cards were not given at once, for Miss Cooke had apparently to hunt for them.

We have examined the above written Account, and certify the same to be correct. We have also inspected the Securities deposited with the Bankers, which we find in order.

18th January, 1898.

ALFRED H. POWELL, F.C.A.
JNO. B. WOLSTENHOLME.

Charles Watson, assistant to Mr. Dulley, chemist, Cromer, said he had known defendant five years. During the last two years he had been living at Cromer, and Mr. Dulley had supplied him with drugs for his business, they being either booked to him or paid for by him.

This was the evidence for the prosecution, and

Mr. Draycott, for the defence, submitted that no case had been made out. He contended that there was no evidence to connect the defendant with the card or plate, for the bare fact that he lodged at the house where the plate was up did not prove it, for they had heard that the father went there frequently. The son had many years' experience in the treatment of diseases of animals, and there was nothing in the world to prevent him continuing with hie work. Defendant, perhaps, knew more about the work than any qualified man.

Mr. Reeve.—I have nothing to say against him.

Mr. Draycott expressed the opinion that if the College had had all the facts of the case before them they would never have instituted the proceedings, and referred to a resolution passed by the Council, as contained in the Register of 1884, authorising the secretary to send cautionary letters to those practising under certain styles, and to prosecute under section 16 those calling themselves veterinary surgeons. The fact that defendant wes not even written to might be cited as being in his favour. There was not the slightest intention on the part of Mr. Sharpen to hold forth as a fully-qualified man, but if necessary he could call crowds of witnesses to prove that he had attended their animals and given every satisfaction. Having characterised the case as a manufactured one, he said no one had been called to whom defendant had declared himself to be a qualified man, and there was nothing to prevent the father having unqualified assistants in every part of England.

After a short consultation in private the Chairman said the Bench had decided to convict, and a penalty of £1 would be imposed, the costs bringing it up to £1 11s.—*Norfolk Daily Standard.*

MEASURES TO BE TAKEN FOR THE PREVENTION OF GLANDERS IN HORSES.

Lecture delivered by M. Nocard at the 13th International Medical Congress, held at Moscow, September, 1897.

(*Continued from page 73.*)

But clinical observations never give more than a certain sum of probabilities bordering on certainty in a greater or less degree. In regard to a subject of this kind, it would be impossible to accumulate too many proofs. To the facts I have just mentioned, I am in a position to add some fresh observations which will, I hope, leave no room for doubt. Last year the military commission on veterinary hygiene and medicine in our country got from the Minister of War authority to make experiments lending to the verification of the facts I have just adduced. The first series of experiments had as its object to establish these facts: 1. The reality of glanderous infection by way of the digestive organs. 2. The diagnostic value of mallein. 3. The possibility of causing in the lungs of sound horses the development of miliary tubercles in all stages of their evolution and especially of the *translucent* tubercles, whose glanderous nature had been long disputed. This series of experiments was made on six horses from a regiment in which glanders had not been observed for ten years; none of these horses had reacted to mallein; two of them were kept to serve as "witnesses" (or control animals) by the commission entrusted

with the following out of the experiments; the four others received, diluted in a half bucket of water, the product of a potato culture of a very virulent glanders-bacillus; fifty hours after ingestion, the temperature of these four horses rose suddenly from 1°8 to 2°6 (5 degrees centigrade=9 degrees Fahr.); an injection of mallein made on the sixth day caused in the four subjects an organic reaction so intense that for three days it was feared they would succumb: the "witnesses," on the other hand, stood the mallein injection without any reaction; after the eighth day, the four animals that had been experimented on had swollen alveolar ganglia, and one of them was affected with discharge and ulcerations of the nasal septum. The fifteenth day after ingestion, the commission had two of the glandered animals and one of the "witnesses" slaughtered. Autopsy was made with the greatest of care; the two glandered subjects had their lungs crammed with a great number of miliary tubercles in all stages of development, *many of which were entirely transparent.* On the other hand, the lungs of the "witness" contained not a single tubercle, transparent or otherwise. The other three horses were killed three months afterwards; the "witness" had no lesion, pulmonary or otherwise. The two other animals, which had for a long time been showing all the clinical signs of glanders (affection of the glands, discharge, nasal ulcerations) had their lungs literally bursting with tubercles in all their phases of evolution; in the midst of calcareous, fibrous, and caseous tubercles in incredible numbers, were found many of soft consistency, of transparent appearance, without any central softening, without densification of the tissue in the periphery, identical in a word to those just formed; by a veritable process of auto-infection unceasingly renewed these horses had each day augmented the number of their pulmonary lesions by infecting with their own discharge their liquid or solid food. A second series of experiments then took place on twelve horses, chosen like the preceding from a cavalry regiment which had long been quite free from glanders. Not one of these twelve horses, when subjected on two different occasions to the mallein test, had given a sign of reaction. On the 30th November, 1896, in presence of the commission appointed to follow the course of these experiments, each of these twelve horses was ingested with an equal quantity of virulent glanderous culture. Three potato-cultures, four days old, were carefully diluted in 300 cubic centimetres of sterilised water; each of the twelve horses, in presence of the commission, drank half a bucket of water into which had been poured 25 c.cs. of the glanderous dilution. Fifteen days afterwards, all the animals were subjected anew to the mallein test. All reacted in the clearest manner. They continued to be carefully observed, and every month or so the injection of mallein was renewed. Several of these horses, having shown clinical signs of glanders, had to be slaughtered: three on the 21st January, 1897, two on the 16th May following; these five horses had not ceased to react to mallein; all five on autopsy showed glanderous lesions, very strongly marked in one case, discrete enough in tw o others, and considerable in the remaining two. Since the end of February the nine surviving horses had been put out to grass in the paddock belonging to the school at Alfort; they stayed there in all weathers, day and night, except during the four or five days necessary for each mallein test. On the 5th June a sixth horse affected with acute double pleurisy of the most serious nature had to be slaughtered; at the last injection of mallein this horse had shown no reaction; and so it was considered cured; on autopsy the existence was ascertained of a small number of miliary, fibrous, caseous, or calcareous tubercles disseminated over the superficial or deeper coats of the lungs; they were collected carefully, and were attached to a small and recent focus of broncho-pneumonia of an indeterminate nature; after having brayed it all together, the pulp obtained was injected,

half under the skin of the neck and shoulders of a she-ass, the other half into the peritoneum of two male guinea-pigs. Two other guinea-pigs received each 5 c.cs. of pleuretic liquid. All these animals, inoculated almost three months ago, are at the present time well and thriving. It is, then, an assured fact that the specific lesions inoculated were no longer virulent.

The six remaining horses had for a long time ceased to react to mallein; they, too, should have been considered cured. On 11th July last, the Military Commission had four of them slaughtered; the autopsy took place in presence of a great number of veterinarians, military or civil, from Paris and the suburbs. In the four subjects, the existence was discovered of indisputable glanderous lesions, though in scanty numbers; the greater part of the tubercles were fibrous; some were caseous, others semi-transparent. All the pulmonary lesions that could be found were carefully collected from each horse; they were pounded as completely as possible; then the pulp obtained was injected, half under the skin of a healthy ass, at the shoulder, the other half into the peritoneum of two male guinea-pigs. I left Alfort on the 14th August last; on that day the four asses and the eight guinea-pigs were still thriving; they had never been unwell. We may take it for certain, then, that the glanderous tubercles inoculated did not contain a single living glanderous bacillus. The series of experiments, confirming the data of mallein, authorises us to affirm that these four glandered horses were completely cured. There remain the two horses which for a long time ceased to react to mallein. We have good reasons for believing that if they had been killed, they would have been found to be in the same state as the others. They have been reserved for active service; they are just now being used in the great Northern manœuvres; if they succeed in standing this test, as is my firm conviction, there will be no longer any reason for assuming that the cure of these horses is only apparent; that their lesions, for the moment lulled to sleep, might have wakened under the stress of hard work and repeated fatigue. And in this case the experimental demonstration will be more completely and strikingly borne out. (These two horses harnessed to heavy wagons, admirably stood the strain of the northern manœuvres which persistent rain made very difficult; they returned hearty, with glossy skins, and without having lost a single kilogramme in weight; at no moment did they show the least sign of uneasiness or fatigue. On their return to the school they were again malleined; neither of them gave any signs of reaction either organic or thermic. The commission had them slaughtered on the 24th October; autopsy revealed in their lungs miliary tubercles, numerous in the one horse, scarce in the other, fibrous for the most part, some infiltrated with living matter, others again grey and slightly transparent. As before, the lesions were collected and carefully pounded, and the pulp thus obtained was inoculated, for each subject, under the shoulder skin of an ass and into the peritoneum of two male guinea-pigs. To-day, three months and a half after inoculation, these animals are in the most flourishing state of health.)

The measures which I advise have not only the support of experiment on which to rest; they have also the sanction of practice, and long practice, too. In France they have been applied by regulations in the army since the 20th September, 1895, and the experience acquired attests their efficacy. There is not yet a law imposing them on private persons; but proprietors are keenly alive to their importance and few there are who refuse to let them be applied in their stables; the results obtained are excellent. I could multiply the examples which prove my statements. I shall limit myself to the following one: in the month of July, 1895, the General Carriage Company in Paris begged me to organise methods of defence against glanders which was

decimating its horses. The situation was a grave one; out of an effective force of 12,000 horses quartered in 23 depots, 586 glandered with symptoms had to be slaughtered within less than six months (July, 1895, to January, 1896); in the month of August alone 170 were slaughtered. I obtained from the administrative council, thanks to its eminent president, permission to apply the mallein test to all the horses. This was no small business; the operation had to be carried out without interrupting the service; in each depot the sound animals had to be separated from those which the mallein had marked out as contaminated; special stables had to be assigned them, with attendants and supplies for their exclusive use; they had above all to be absolutely interdicted from access to the drinking troughs which are unfortunately the rule in France for all large collections of horses; finally, all the stables had to be thoroughly disinfected and, in those in which the mangers and partitions were of wood, cement had to be substituted, to make disinfection possible. The Company granted me all that I deemed necessary. The operation lasted for eight months; it was performed under the best conditions by three of my pupils: MM. Schrader, Guiguard, and Malet, admirably directed by one of my former fellow-students, M. Blanc, head of the department. Out of 10,321 horses subjected to the test, 2,037 showed the characteristic reaction, or, in round numbers, 20 per cent. Though this percentage is so high, it does not, however, show the full gravity of the evil; in fact, of the twenty-three depôts of the company, sixteen were almost immune; as for the seven others, the number of horses infected varied from 32 per cent. to 56 per cent.! Of these 2,037 animals, "denounced" by mallein without a single one of them showing the least symptom which could make one think of glanders, 687 became *clinically glandered* and were slaughtered; on the other hand, 338 *ceased to react to mallein and entered the category of sound animals.* A great number of these have had to be put away through age, wear and tear, and accidents; we have made an autopsy of them all; in every case the lesions were manifestly cured, whether fibrous or calcareous; in a certain number of cases these lesions were carefully collected, sown, and inoculated: the cultures did not produce the Loffler bacillus; none of the animals inoculated took glanders. The operation would not have been complete if we had not subjected to the mallein-test the new horses bought for relays. Out of 5,027 horses presented at the end of 1895 to the purchasing commission, mallein "denounced" 237, or 4·71 per cent., which were handed back to the dealers. In 1896 the proportion of suspected animals rose to 6·77 per cent. of the horses inoculated, or 381 out of 5,626! Do not these figures eloquently speak for the extreme importance of this measure? Mallein has not only had the advantage of quickly disclosing pulmonary glanders, inaccessible to every other means of diagnosis, and of thus making us masters of the disease; it has further allowed of our sending back to duty a great number of horses which would otherwise have been put away as suspected by reason of symptoms indicating, as it seemed, the presence of glanders. From the 11th October, 1895, to the 30th June, 1897, 627 horses had to be thus malleined (of these, 392 for affected glands, 63 for nasal discharge, 156 for stoppages, lymphangitis, or buds of farcinous appearance, 2 for epistaxis, 14 for varied lesions). Out of these 627 horses, only 265 were found to be glandered and were slaughtered; 362 were not glandered, and it was possible to send them back to duty immediately.

The total of slaughtered was 586 in the last six months of 1895; it abates gradually to 159; and 140 for the two half-years of 1896; it is only 62 during the first half of 1897. We must not forget that of these 62 horses slaughtered in 1897, 15 were already glandered without symptoms in 1895; the number to be imputed to new infections is, then, only 47! It is quite a

low figure—normal, we might almost say, when we consider the working conditions of the company's horses; during their stay at the cabstands in the public streets, they are in continual contact with horses from every quarter; they often drink, in spite of the stringent injunctions given to the cabmen, in the common buckets of the cabstands or the public-houses; and thus they are incessantly exposed to infection; but the present organisation of the service allows of our affirming that these accidental infections, which will take place from time to time until all the stables of coach-hirers are purified, will give rise to only small centres of infection of slight importance, which will be promptly extinguished, and that the grave situation of 1895 will not be reproduced. It will be thus seen that the application of the measures I advocate has given in practice results which theory, based on experience, allowed us to hope for.

RINDERPEST INVESTIGATIONS.

Memorandum adopted at the Conference held in Cape Town on the 14th and 15th October, 1897, between the Colonial Veterinary Surgeon, the Director of the Bacteriological Institute, and the Medical Officers in charge of the Koch Laboratory, Kimberley.

(*Continued from page* 68.)

The Belmont Experiment.

At Mr. Hutcheon's request, I gladly acceded to a field experiment, asking him to kindly select the area and the herd, and to put the experiment in the charge of one of his assistants. Mr. Borthwick, M.R.C.V.S., was therefore instructed to select the herd, which he did at Belmont. It was intended that Dr. Turner should also go to the same herd and inoculate part of them on the Koch system, but I understood that the want of sufficient bile prevented his being able to undertake his experiment at the same time as mine. On proceeding to the selected farm with Messrs. Robertson, Borthwick and Dudgeon, a herd of 128 animals was set apart for my experiment. This area was understood to be clean, but we found to our great regret that the adjoining farm was already infected. After taking the temperatures, however, I considered that there was no evidence of active disease, and I determined upon completing the experiment; 126 animals were accordingly inoculated with glycerinated bile, and it was intended to give them 20 c.c. each, excepting the smaller animals, which should have less. In the hurry of inoculating two syringefuls each of the bile were given, but I found later that the full syringe contained rather more than 10 c.c., hence many had more than 20 c.c., while of the smaller animals the dose would be about 16 c.c. Two animals were left as controls for the virulence of the second or blood inoculation, and were, of course, not interfered with. Ten days later, on my return, we found that one of the animals had been attacked with rinderpest shortly after our departure, being undoubtedly infected from the adjoining farm. Of the remainder, 10 animals were inoculated by Dr. Kolle with 0·2 c.c. of virulent blood, which he had brought from Kimberley, the others and the two controls were inoculated by Messrs. Robertson and Freer, M.R.C.V.S., with 0·2 c.c. virulent blood, which had been taken from a case selected by Mr. Borthwick, and which had been taken into citrate solution. Of all of these animals which had been previously inoculated with glycerinated bile none died, although two of the number inoculated with citrated blood were sick and

recovered. None of those inoculated by Dr. Kolle showed the slightest sickness whatever. The two controls, inoculated with 0·2 c.c. citrated blood, died each on the same day, and within twenty minutes of each other. A month later a calf, born after the inoculation had been completed, died of rinderpest among the herd, but no other animals became affected. This, then, may be said to have been the history of this method previous to its adoption as a means to protect cattle, among the farmers of the colony generally, and it will be seen that while it may be said to be a modification of the bile method, it may with equal propriety be said to be a modification of the blood method, as the process of its preparation is identical, and the immunising property in both would seem to be very similar, inasmuch as a combination of the two may be used in an amount equal to what would be required of each separately, with very good results.

With regard to Dr. Koch's method of bile inoculation, I am fully convinced that it has been the means of saving immense numbers of cattle in South Africa, and for this we are indebted to him in no small degree ; moreover, by his careful work he has opened up a new line of thought, for which, perhaps, he will not be fully credited until a later period of time.

I must, however, in all honesty agree with the statements made by Messrs. Danyz and Bordet with regard to the use of fresh gall :—

1. That it may actually produce rinderpest.

2. That it may produce a mild form of the disease, and thus "salt" the animals inoculated.

3. That it may be productive of no result, neither rinderpest nor immunity being produced.

I would, however, add that in many cases the immunity produced by its use would seem to be of a most active character, and of considerable permanency.

I would also emphasise a fact which seems to me of great importance, namely, that where a herd, previously inoculated, become affected with rinderpest at a later date, the progress of the disease is very different from that occurring in an inoculated herd.

In the former case the appearance of the disease is among isolated animals, owing to the fact that the immunity does not disappear equally in point of time, and it thus happens that the farmer has opportunity to take steps to arrest it. In an inoculated herd, on the other hand, the appearance of the disease is but the precursor to widespread mortality.

I now, however, desire more particularly to deal with certain passages in the report alluded to, wherein the method of inoculation by means of glycerinated bile is criticised, and my conclusions opposed.

1. They say "the use of glycerine for this purpose is nothing new, it has long been used for purifying and preserving vaccine lymph." In my method it is used simply to prevent putrefaction ; the element of time being made use of for the allowing of the death of the infective principle. Its use in this way is entirely new.

2. They say "Dr. Koch himself considered the advisability of using glycerine in the way mentioned, but found that it was useless and consequently abandoned it."

If Dr. Koch USED this method, it seems to me that it would have conduced to clearness if they had definitely stated the fact. The context of their statement, however, shows that it was believed that the immunising power of bile was dependent upon the living contagium of the rinderpest virus, and as Dr. Koch believed from his experiments with blood that glycerine destroyed this virus, it is clear that he could not "have considered the advisability of using the glycerine in the way mentioned."

3. They say "we quite agree that glycerinated gall is incapable of spreading

the disease . . . If the gall (that is gall without the admixture of glycerine) spreads the disease, it can only do so by the operation of the rinderpest organism, which, in a modified form occurs in the gall. But Dr. Koch showed that glycerine kills this organism, and we have shown that it practically deprives the gall of all active immunising power." Much further on in this report they say "that the gall and glycerine mixture will keep is undoubtedly true, *i.e.*, the mixture will retain its extremely feeble immunising power for a considerable time." They therefore admit to me a most important discovery in the history of bile inoculation, namely, that in addition to possessing a principle which produces active immunity, the bile or gall contains a material which produces a passive or temporary immunity. This is, indeed, all that I have ever claimed for it.

4. They say, "After witnessing these experiments Dr. Edington increased the dose of bile and glycerine to 24 c.c." "This dose will generally confer an immunity of more than ten days' duration, and therefore explains the apparently favourable result obtained at Belmont." These statements are not correct; firstly, I had not the pleasure of witnessing these experiments, although I certainly knew from what both gentlemen said that they were making experiments, and the result of one experiment was brought under my notice. This experiment referred to two animals which Dr. Turner, I believe, had inoculated with glycerinated bile with the intention, I presume, of infecting them ten days later with virulent rinderpest blood. One of these, however, had already contracted rinderpest before it could be inoculated with virulent blood, and with regard to its fellow the rise of temperature which followed inoculation with blood on the tenth day occurred so soon after that operation that I would have concluded that it had been spontaneously infected from its neighbour.

Secondly, I have not increased the dose to 24 c.c. The published statement in the *Gazette*, which has been taken over by numerous papers and which has been supplied to stations, showed that the dose was 20 c.c. for average cattle, 15 c.c. for smaller, and 25 c.c. for very heavy cattle. Now as the smaller cattle generally outnumber the very heavy ones in a herd, it is obvious that the average amount used in a herd would be less than 20 c.c.

The greater economy is also practically shown by the percentage of cattle sent in to the bile stations—7 per cent. under the Koch method and 4 per cent. under mine. The surplus bile from the Cathcart Station (glycerinated bile method), which was sold after the closing of the station fetched over £1,000.

5. They state that "more than half the animals die when so small a quantity as 0·2 c.c. of really virulent blood is used after gall and glycerine." This was not the case at Belmont, nor has it so proved in many herds inoculated by others. Further, in many cases, following upon the use of a small dose of blood, a much larger dose has been used at a later period.

6. They say "the reason that more accidents have not occurred is that the blood used, having been mixed with citrate of potash, is very inactive." As a matter of fact, excepting in a comparatively few cases where such blood has been used in some of my experiments, inoculations carried out from bile stations generally have been made with defibrinated blood; hence another explanation must be offered in order to explain the fact "that more accidents have not occurred" by this method.

I do not propose to explain the fact that accidents have occurred in their hands, but I may add that I prefer to make use of biles taken at a late period in the history of the diseased animals rather than early biles, and I have found that if, after injecting the glycerinated bile, care is not taken to promote its dispersion by a little rubbing, there is a grave danger to be apprehended,

namely, that the material may become incapsulated, and not give rise to proper immunising action.

The experiment at Britstown cannot be taken as absolute proof that pure bile cannot give rise to rinderpest in the absence of a clear statement to the effect that the bile made use of was fresh bile, or that which had been kept for some days previous to its use. It has to be remembered that the veterinary surgeons who have used the bile in the field have had to use fresh bile, and it is that bile which is referred to when the statement is made that it can in some cases give rise to actual rinderpest.

Finally, I cannot pass without comment the curious line of argument by which they ascribe fatal results in their hands with glycerinated bile followed by blood to weak immunity, and similar results after ordinary bile inoculation in the Kimberley compound to the station being "the most highly infected area in the whole of South Africa."

I contend, therefore, that all of the three advantages I have claimed for the glycerinated bile are fully admitted by very many persons who have had experience of it in this Colony and neighbouring States, and that the report in question has not disproved that such advantages really exist.—I have, etc.,

(Signed) ALEXANDER EDINGTON, M.D.,
Director.

INHALATION-PNEUMONIA.

BY W. L. WILLIAMS, V.S.,
Professor of Surgery in the New York State Veterinary College;
and
P. A. FISH, D.V.S.,
Professor of Therapeutics in the New York State Veterinary College.

THE inhalation of foreign bodies, mechanical, chemical, or bacterial, tends usually toward bacterial invasion of the bronchial mucosæ, extending thence to the deeper parts, finally involving all tissues of the lungs, inducing suppuration, necrosis, and death.

The symptoms vary greatly in detail, though in general they present the ordinary signs of bronchitis and pneumonia, along with expectoration of fetid bronchial secretions and variations in chest-sounds as would result from the presence in the tubes of the foreign bodies inhaled or of the products of disease.

The most common causes are the inhalation of medicines during their forced administration; of food-particles during coma, as in parturient apoplexy of the cow; of pathogenic organisms and their products, after arytenectomy for the cure of laryngismus in horses, or other operations in the upper air-passages; by the inhalation of pus discharged into the fauces or upper air-passages, from abscesses, diseased teeth, or tumours; by animal parasites in the air-passages; by the inhalation of irritant gases, or hot smoke, or of liquid chloroform during the production of anæsthesia, and by a great variety of more rare accidents ending in the lodgment of irritant foreign bodies within the air-passages. We might include, also, a highly important class of infections, like diphtheria, in which there is a tendency to the extension of the lesions to the lungs; or of tuberculosis, actinomycosis, and glanders, in which necrosis and softening of patches of lung-tissue frequently occur, discharging into the bronchi, tending to pass upward, only to be, in part, carried backward into neighbouring bronchi, establishing there their typical pathological processes in the manner commonly termed auto-infection.

As a rule, the treatment of these cases has proved ineffectual, and practitioners recoil from them with well-founded dread. The plan usually followed consists in the internal administration of expectorants and sedatives, with some of the gum-resins possessing antiseptic properties, and which are largely excreted by the lungs, and the inhalation of vapours, either simple or medicated. Intratracheal injections of vermicides have been successfully employed in verminous bronchitis, and the bronchial mucosa has been used as a prompt and reliable absorbent surface for the administration of various drugs in solutions of small volume. The senior writer has attempted the administration of antiseptics in small volumes by intratracheal injection in cases of suppurative bronchitis, and has endeavoured to aspirate suppurative areas of the lung, and inject the cavities with antiseptics, but without noteworthy success. Beaumont Small (*Handbook of Medical Science*, ix. 756) employed a 1 : 500 solution of pyoctanin in the form of intrapulmonary injection of eight to sixteen minims in pulmonary tuberculosis, which was reported well-borne, except that when reaching the bronchi, it caused violent coughing, but was said to have lessened the hectic condition, and diminished the number of bacilli in the sputa.

We have been unable to find a record of any attempts to administer, per trachea, for therapeutic purposes large volumes of liquid, either as mechanical detergents or as topical or general antiseptics, the filling of the lower air-passages with liquids being associated in the popular mind with drowning. Opposed to this fear existed the well-known fact that in partial drowning the water which had well filled the air-passages were in many cases partly drained out, largely absorbed, and the patient left little worse for the experience beyond the psychical shock. It had also been shown experimentally that large quantities of water could be slowly introduced into the lungs through the trachea and become absorbed without untoward results, while a like volume introduced rapidly and persistently would produce profound disturbance and eventually death. Notwithstanding that absorption occurs more rapidly in the lungs than elsewhere in the body, excess of fluid effects material changes not only in the respiratory epithelium, but also in the blood, in which any change must necessarily affect all other tissues.

In an experiment at Lyons, France, under the direction of Gohier, 30 litres (7½ gallons) of water were injected into the trachea of a horse without causing death. In another case it required 40 litres (10 gallons) to kill the animal by suffocation. Colin (1873, vol. ii. page 109), experimenting along the same line, introduced into the trachea of a horse by means of a special apparatus 6 litres of water per hour at a temperature of 30° to 35°C., which was continued for three and one-half hours, making a total of 20 litres, after which the animal was immediately destroyed, the bronchi quickly opened and found empty, all the water having been absorbed. In another horse he introduced into the trachea 25 litres of water in six hours, and bled him three times at intervals of two hours, obtaining 6 kilogrammes (13 2-10ths pounds) of blood. The respiratory mucosa absorbed all the water without apparent inconvenience to the animal.

Intratracheal medication, though not in general use, has much to recommend it when rapid effects are desired, especially in those pulmonary diseases where antiseptics are indicated. Among the agents best adapted for this use is hydrogen peroxide, which is antiseptic, non-toxic, deodorant, styptic, and in dilute solution, non-irritant.

With these facts and suggestions before us, two cases were presented at the clinics of the New York State Veterinary College which served to invite more radical attempts at intratracheal medication than had previously to our knowledge been undertaken, the results of which were, to us, at once so unexpected and instructive that we felt ourselves warranted in communi-

cating them to the profession, though admitting that our experiments were preliminary and quite incomplete.

Case I.—An adult roadster gelding, vigorous and sound so far as known, except well-marked laryngismus paralyticus, on which account he entered the clinic for the removal of the left arytenoid cartilage. After careful dieting, he was cast for the operation on June 3rd. General anæsthesia was omitted, and cocaine used to produce local insensibility. A tracheotomy tube was inserted some twelve inches downward from the larynx, after which the arytenoid cartilage was excised in the ordinary manner by the senior author of this paper. The patient fought viciously throughout the operation, and, the day being warm, he became very hot and bathed in profuse perspiration. The operation completed, the tampon trachea-tube was inserted and the operation-field tamponed with absorbent cotton and iodoform.

June 4th. The tampon and canula were removed, the operation-field carefully sponged with 1-1000th sublimate solution, and the horse was permitted to drink a goodly quantity of milk, which he apparently relished. From this time until June 10th the patient seemed bright, drank liquid food with avidity, temperature was normal, and all appeared well except an abundant and ever-increasing fetid, purulent discharge from the nostrils and tracheal openings.

10th. He appeared weaker and had fallen down, but was quickly assisted to his feet, and, the fetor of tracheal discharges still increasing, we injected small quantities of hydrogen peroxide into the trachea, which caused the discharge of some froth.

11th. Well-defined suppurative broncho-pneumonia was noted, the patient was rapidly failing, and the area of disease was so great that the intratracheal injection of small volumes of antiseptics could promise no benefit. At this juncture Professor Law suggested that, as an experiment on a hopeless case, we might, in light of experiments noted above, attempt the administration of antiseptics by the intratracheal injection of large volumes of liquids and permit them to be absorbed from the pulmonary mucosa. We prepared a tepid solution consisting of 5 litres of water, 30 grammes sodium chloride, and 60 c.c. of the commercial solution of hydrogen peroxide. Placing this in an irrigating reservoir at an elevation of ten feet above the animal, with the liquid gravitating downward through a three-eighth inch rubber tubing and escaping through a one-fourth inch nozzle, the latter was inserted in the tracheal opening and the liquid allowed to flow into the trachea in a full stream until about one litre had entered, when by an expulsive effort the greater part was thrown out through the tracheal openings—mouth and nostrils—the liquid emerging frothy and carrying with it fetid discharges. As soon as that which had been thrown into the trachea was well out the process was quickly repeated, until within ten minutes the entire five litres of liquid had passed into the trachea, the greater part of it having been thrown out again, carrying with it much putrid material. This was accomplished without apparent distress to the patient, causing only a moderate amount of coughing with each expulsive effort, and leaving him at the conclusion of the ordeal apparently without additional fatigue and with the fetor of his breath greatly diminished, his air-passages clean, and, to all appearances, the local conditions materially improved. The patient died on the following day without our having repeated the treatment, and the autopsy showed extensive necrotic broncho-pneumonia.

The only result gathered from the case was the facility with which large volumes of liquids could be rapidly introduced into the trachea without producing inconvenience to the animal worthy of remark, at the same time thoroughly flushing out the air-passages and measurably deodorizing and disinfecting them.

Case II. was in all material respects like Case I. Operated upon on June 4th of this year in the same manner as Case I., by student H. The patient struggled less violently than Case I., and was less fatigued after the operation. Tampon and tampon-canula applied as in Case I., and removed the following day. Deglutition very imperfect, almost all fluids taken into the pharynx being expelled through the nostrils and tracheal openings.

From June 6th to 12th the loss of power of deglutition continued unabated, and there were no notable changes except that gradually increasing fetid discharges took place from the nostrils and tracheal and laryngeal openings. By June 13th the patient had become exceedingly weak, having been practically without food, either solid or liquid, for nine days. At this stage the tracheotomy-tube, which had been removed on June 6th, was replaced as a precautionary measure, and the patient allowed to eat succulent grass and soft bran and linseed mashes, of which he partook sparingly, much of it dropping out through the laryngeal opening.

By June 17th the breath had become very fetid, and, on the 18th, excessively stinking. An examination of the tracheal wound revealed a necrotic piece of cartilage, which was excised. We then introduced into the trachea 5 litres of tepid water with 30 grammes of sodium chloride and 60 c.c. solution of hydrogen peroxide, which, flowing in rapidly, was largely expelled, thoroughly flushing the air passages, pharynx, and surgical wound, cleansing and deodorizing the parts.

On the 19th the fetor seemed so much less that the irrigation was omitted; but on the 20th the fetor had increased, and the lungs were again flushed out as on the 18th, without inducing any marked discomfort. The intratracheal treatment was now continued.

After this the patient seemed to improve slowly, if at all, in strength, appetite, and power of deglutition, and was greatly harassed by a persistent cough. The tracheotomy tube was removed on June 25th, as the power of deglutition now seemed restored, and by July 14th the tracheal and laryngeal wounds had closed; but the cough continued, the patient remained emaciated and weak, the appetite indifferent, the breath had again become fetid, especially evident during his fits of coughing, when he expectorated through the mouth or expelled through the nose dirty-grey, very fetid discharges. As there was evidently a still more serious pathological condition present, we reopened the laryngeal and tracheal wounds for examination, finding each completely healed and all adjacent parts apparently normal. We had barely completed our physical examination of the parts when, in a fit of coughing, he expelled through the laryngeal incision an excessively fetid, dirty-greyish, tenacious mass, which it could now be no longer doubted had emanated from low down within the bronchi, and indicated local purulent broncho-pneumonia. We then began anew the irrigation of the bronchi, the volume, composition, and mode of administration of the fluid remaining the same, and being repeated daily. On the 15th we began the internal administration of quinine sulphate 1 dram, nux vomica, grs. xx, and arsenic, grs. ij., twice daily. At the first expulsive effort during each irrigation the patient expelled with the water about 10 c.c. of a dirty-grey, very fetid, tenacious discharge, and on July 17th he expelled a piece of fetid necrotic tissue estimated to weigh 2 grammes.

July 18th. The volume of water was reduced to three litres, the sodium chloride correspondingly, leaving it at ·06 per cent., while the volume of hydrogen peroxide was left unchanged.

19th. Five days after the beginning of the regular daily irrigations the fetor of the expectorated mass had greatly diminished, while its colour had changed to almost that of ordinary mucus.

20th. No fetor could be detected in expectorate nor in expired air.

26th. The hydrogen peroxide was doubled, which caused more coughing and resulted in increased discharge of bronchial secretion on the 27th and 28th, though the hydrogen peroxide had been reduced on the 27th to the original amount, and was so continued thereafter.

31st. The patient had markedly improved in every way, was gaining rapidly in flesh, the cough was less frequent, the bronchial discharge less, and seen practically only at times of irrigation, and the animal would run and play in the paddock. The use of the tracheotomy-tube through which injections were made was dispensed with on July 30th, and the nozzle of the injecting-tube inserted directly in the trachea, with an apparent advantage in causing less coughing.

August 2nd. The patient had so far recovered that treatment was discontinued and the tracheal wound permitted to close.

7th.—He was hitched to a buggy and tested at a rapid pace up a steep hill, and found apparently much improved in wind.

12th.—He was driven home, a distance of twenty miles, without showing signs of fatigue. On August 31st the owner reported the patient much improved in flesh, practically free from cough, almost free from respiratory difficulty when driven rapidly, and taking exercise-work daily without fatigue or other difficulty.

While our experiments were very limited in extent, and can be regarded only as preliminary and suggestive, some facts have been established which appear to us of interest.

It has been shown not only that large volumes of water can be introduced slowly into and absorbed from the lungs, but that such quantities can be introduced at a rapid rate into the trachea and bronchi, if the trachea is open, and be thrown back through trachea, larynx, pharynx, mouth, and nostrils, thoroughly flushing these parts, constituting thereby our most efficient cleansing procedure. We have shown that the air-passages tolerate quite well at least one antiseptic—hydrogen peroxide.

Of great interest, it appears to us, is the fact that on July 17th, during irrigation, we flushed out a large-sized piece of necrotic tissue, which must have been lodged low down in the bronchi. In each case, apparently, we cleared the bronchi (at least the larger ones) of all foreign matter, and certainly are warranted in believing that the irrigation of the lungs exerted a very favourable influence on the course of the disease.

Our efforts suggest a much wider range of usefulness. In accidental inhalation of drugs during drenching, it seems that irrigation may, in safety, be depended upon to wash out oils, to dilute and wash out such irritants as alcohol, turpentine, whiskey, chloral, etc.; while in the case of foreign bodies of considerable size it offers us a means for their removal quite worthy of a trial. It seems quite possible that good results might be had by this plan in such affections as pulmonary tuberculosis, where large softening areas communicate with and discharge into the bronchi, and in all forms of suppurative broncho-pneumonia, and possibly also in extensive diphtheritic invasion of the air passages.

Perhaps one of its most direct uses will be found in the prevention of inhalation-pneumonia after arytenectomy, as it affords us not only a safe plan for thorough irrigation of the field of operation, but the fluid passing down the trachea into the bronchi will flush out and destroy any pathogenic organisms which have been inhaled.

We do not say that our plan, formula, or rate of administration is the best. Other antiseptics may be better and other rates or details of administration may be far superior. We do not know if it is better to have a tracheal or laryngeal opening or not, though the absence of a counter-opening might, it

seems to us, lead to a dangerous spasmodic closure of the larynx. The rate of administration can evidently be varied. We did not know at the beginning of our experiment the rate of administration by the experimenters quoted, and departed widely from their plan by introducing the liquid at a very rapid rate—quite too rapid to permit of total absorption—and in that way learned that we could, without discomfort or injury, have it quickly expelled; and thus we learned by comparison with Colin's and Gohier's experiments that we may, at our option, by varying the rate of administration, either have the liquid absorbed or rejected or partly absorbed and in part expelled. At some times we apparently had 50 per cent. or over absorbed, though always given rather rapidly, while in other cases nearly all appeared to be rejected.

We have been led to hope that, in spite of the meagre experience upon which we have based our communication, the facts and suggestions will suffice to lead others to study the plan of treatment herein outlined, with a view to developing a successful method of therapeutics in this heretofore baffling group of affections.

PUBLIC HEALTH (SCOTLAND) ACT, 1897.

[60 & 61 Vict., Ch. 38.]

*Unsound Food.**

43.—(1.) Any medical officer or sanitary inspector or any veterinary surgeon approved for the purposes of this section by the local authority, may at all reasonable times enter any premises within the district of the local authority, or search any cart or vehicle, or any barrow, basket, sack, bag, or parcel, in order to inspect and examine and may inspect and examine

(*a*) Any animal, alive or dead, intended for the food of man which is exposed for sale, or deposited in any place or is in course of transmission for the purpose of sale, or of preparation for sale; and

(*b*) Any article, whether solid or liquid, intended for the food of man, and sold or exposed for sale, or deposited in any place or in course of transmission for the purpose of sale or of preparation for sale,

the proof that the same was not exposed, or deposited, or in course of transmission for any such purpose, or was not intended for the food of man, resting with the person charged; and if any such animal or article appears to such medical officer, or sanitary inspector, or veterinary surgeon to be diseased, or unsound, or unfit for the food of man, he may seize and carry away the same himself or by an assistant, in order to have the same dealt with summarily by a sheriff, magistrate, or justice.

Provided that in the case of any proceeding under this section with regard to a living animal, the medical officer or sanitary inspector, unless he is himself a qualified veterinary surgeon, shall be accompanied by a veterinary surgeon approved as aforesaid.

The police force of each police area shall have power to search carts or vehicles, or barrows, baskets, sacks, bags, or parcels, and to assist generally in executing and enforcing this section.

(2.) If it appears to a sheriff, magistrate, or justice, that any animal or article which has been seized, or is liable to be seized under this section, is diseased, or unsound, or unfit for the food of man, he shall condemn the same, and order it to be destroyed or so disposed of as to prevent it from being exposed for sale or used for the food of man; and the person to whom

* Inspection and destruction of unsound meat, etc.

the same belongs or did belong at the time of sale or exposure for sale, or deposit or transmission for the purpose of sale, or of preparation for sale, or in whose possession or on whose premises the same was found, shall be liable to a penalty not exceeding fifty pounds for every animal or article, or if the article consists of fruit, vegetables, corn, bread, or flour, for every parcel thereof so condemned, unless he proves that he and the person acting on his behalf (if any) did not know, and could not with reasonable care have known, that it was in such a condition, or where the proceedings are before a sheriff, at the discretion of the court, if it finds that he has knowingly and wilfully committed the offence, he shall be liable without the infliction of a penalty, to imprisonment for a term of not more than three months with or without hard labour, and also to pay all expenses caused by the seizure, detention, or disposal thereof.

Provided that if such person proves that the animal or part thereof condemned as aforesaid was within a reasonable time prior to the seizure thereof examined upon the premises where the animal was slaughtered and passed by a veterinary surgeon approved as aforesaid called in for the purpose, and who shall have granted a certificate of passing as nearly as may be as in the next sub-section provided, or by a veterinary surgeon in terms of that subsection, he shall be exempt from penalty or imprisonment under this section for such offence.

(3.) Each local authority, or two or more local authorities in combination, may, if they think fit, appoint a place or places within its district or their districts, and fix a time or times at which a veterinary surgeon approved as aforesaid shall attend for the purpose of examining any animal, alive or dead, which may there be submitted to him, and passing or condemning the same, and such veterinary surgeon shall, on receipt of a fee to be fixed by the local authority or authorities, and paid by the owner, examine and pass, or condemn in whole or in part, any animal or carcase so submitted to him; and if he shall pass the same, he shall grant a certificate of passing which shall set forth the name of the owner, the date and hour of examination, and such particulars regarding the animal or carcase as the local authority or authorities may prescribe for the purpose of aiding in the subsequent identification of the same; and if he shall condemn the animal or carcase, or part thereof, the animal or carcase, or part so condemned, shall be retained and be forthwith destroyed by the local authority or authorities, or so disposed of as to prevent it from being exposed for sale, or used for the food of man, and the owner shall be entitled to the net price realised from the residual product of the carcase or part so condemned, if any, after deducting the expenses of condemnation and destruction. Provided that no carcase shall be submitted for examination, either under this or the immediately preceding subsection, unless as a whole carcase, including the thoracic and abdominal viscera, in such manner that the examiner shall be readily able to satisfy himself that the organs are those of the carcase under inspection.

(4.) Where it is shown that any animal or article liable to be seized under this section and found in the possession of any person was purchased by him or consigned to him from another person for the food of man, and when so purchased or consigned was in such a condition as to be liable to be seized and condemned under this section, the person who so sold or consigned the same shall be liable to be brought to trial in the district in which such animal or article was seized, and on conviction shall be liable to the penalty and imprisonment above mentioned, unless he proves that, at the time he sold or consigned the said animal or article, he and the person acting on his behalf, if any, did not know, and could not with reasonable care have known, that it was in such a condition.

(5.) A copy of any certificate granted by a veterinary surgeon, under sub-sections two or three of this section, shall forthwith be sent by him to the chief constable of the jurisdiction in which the examination of the animal or carcase took place, and the certificate itself shall be sent by the person selling the animal or carcase forthwith after the sale, and not more than seven days from the date of the certificate, to the chief constable of the jurisdiction in which the sale of the animal or carcase took place, and if any veterinary surgeon or person shall contravene this enactment he shall be liable to a penalty not exceeding twenty pounds.

(6.) Where a person convicted of an offence under this section has been within twelve months previously convicted of an offence under this section, the sheriff, magistrate, or justice may, if he thinks fit, and finds that the offender knowingly and wilfully committed both such offences, order that a notice of the facts be affixed, in such form and manner and for such period not exceeding twenty-one days as the sheriff, magistrate, or justice may order, to any premises occupied by that person, and that the person do pay the costs of such affixing, and if any person obstructs the affixing of such notice, or removes, defaces, or conceals the notice while affixed during the said period, he shall for each offence be liable to a penalty not exceeding five pounds.

(7.) If the occupier of a licensed slaughter-house is convicted of an offence under this section the sheriff, magistrate, or justice convicting him may cancel the licence for such slaughter-house.

(8.) If any person obstructs a medical officer, sanitary inspector, or veterinary surgeon as aforesaid in the performance of his duty under this section he shall, where the proceedings are before a sheriff, and where the sheriff is satisfied that the obstruction was with intent to prevent the discovery of an offence under this section, or that the accused has within twelve months previously been convicted of such obstruction, be liable to imprisonment for any term not exceeding one month in lieu of any penalty authorised by this Act for such obstruction.

(9.) A sheriff, magistrate, or justice, may act in adjudicating on an offender under this section whether he has or has not acted in ordering the animal or article to be destroyed or disposed of.

Notes and News.

Mr. Stephen Wingrove, General Manager of Spratt's Patent Limited, has accepted the invitation of the Directors of that Company to join the Board.

The Royal Photographic Society is organising an International Exhibition of Photographic Apparatus and Photographs, which will open at the Crystal Palace on April 27th. In addition to the usual displays of Pictures, etc., the leading firms, manufacturers, and dealers, will be largely represented. There will also be extensive Loan Collections, illustrating not only the history of Photography, but its enormous scientific and commercial applications, Photo-mechanical Processes, Photographs in Colours, Photographs by means of the -rays, and kindred exhibits. The Exhibition, the arrangements for which are in the hands of a Joint Committee of members of the Society and Exhibitors, bids fair to be the largest and most interesting collection dealing with Photography which has ever been got together.

A Clearing House for Dead Meat.—At a meeting of the Perthshire County Council on Monday, the chairman (Mr. Andrew Hutcheson) called attention to the operation of the new Public Health Act so far as farmers were concerned. Under the new Act, if a farmer had to kill an animal, sending it to any of their slaughter-houses, if it was condemned the farmer or owner rendered himself at once liable to fine and imprisonment. The Act

said that the local authority might appoint a place or places within the district, and appoint time or times when veterinary surgeons should attend for the purpose of examining any animal, living or dead. If that veterinary surgeon passed it they were free. He suggested that they should try to get some small accommodation in the Perth and Dundee slaughter-houses, where carcases could be received and inspected. Mr. George Pople seconded. Colonel Sandeman asked if Mr. Hutcheson meant that the County Council should appoint the veterinary surgeons. The chairman said that he did, and pointed out that the Act forced public health authorities to do that. Col. Richardson asked, if such inspectors were appointed, should not some fee per carcase be imposed? After further discussion, Messrs. Hutcheson, Pople, and Ferguson were appointed, with powers to carry out the provisions of the Act by arranging for an inspection in Perth and Dundee, and for charging a suitable fee for such inspection.—*North British Agriculturist.*

Review.

OSSA EXTREMITATUM EQUI ET INSERTIONES MUSCULORUM. (The bones of the limbs of the horse, with muscular insertions.) By DR. MED. VET. REINOLD SCHMALTZ. 10 marks. Berlin. Richard Schoetz.

The name of Reinold Schmaltz on the cover of an Atlas of Veterinary Anatomy, has come to be a guarantee of the excellence of the contents. All that this eminent anatomist has undertaken in the past has been performed in a manner which has called forth unstinted praise. The Atlas at present before us is no exception to this rule.

The work consists of nine plates illustrating the bones of the fore and hind limbs of the horse. The figures themselves are excellently drawn and beautifully printed. The parts of the bones are not indicated by letters or figures, but by the names themselves; thus saving a considerable amount of time usually occupied in looking out the references in a separate table of names.

Immediately preceding each plate is a sheet of transparent paper, upon which are printed the outlines of the bones and insertions of muscles, tendons and ligaments, this sheet being so superposed upon the plate that the outlines on the one coincide with those on the other.

With one exception, all the figures are drawn to scale, being half life-size.

The most interesting feature—to us—is the nomenclature adopted. It is the Latin nomenclature decided upon by the International Congress of Veterinarians which met at Berne in 1895. It will be remembered that, though the full details will not be completed until 1899, the Congress determined to follow the nomenclature of human anatomy.

This is hardly the place to criticise the decision or the nomenclature and, therefore, we only remark that we may safely assume that many years must elapse before it comes into general use among teachers. It is exceedingly donbtful if it will find any acceptance at the hands of practitioners; the present method of naming things, however confused and confusing, will, we doubt not, have to serve for some time to come.

It only remains for us to say that each plate is faced by a page containing three columns, in the first of which the "Nomenclator anatomicus" is given; and in the remaining two, the German and French equivalents.

Taking it all in all the Atlas is a production of which author, artist, printer and publisher, have just reason to be proud. We strongly recommend it to the notice of the student and, we might also add, the practitioner, who desire to possess better illustrations of osteology than it is possible to give in the ordinary text-books.

The present work is printed in German and French, but the author tells us that editions in other languages will appear separately. We look forward with eager anticipation to the appearance of an English edition.

Correspondence.

To the Editor of THE VETERINARY JOURNAL.

A NEW TRACHEOTOMY TUBE.

SIR,—At my suggestion Mr. Huish, of Fisher Street, London, W.C., has made a celluloid tracheotomy tube, the advantages of which may be summed up as follows:—

1. It prevents the ulceration so much aggravated by metal tubes.
2. It is 75 per cent. lighter than the tubes made of brass, nickel, etc., and is equally strong.
3. It is the least conspicuous and is easily removed for cleaning.

Tubes previously made of celluloid were made by screwing the arms into the discs, and consequently when in situ there was extreme danger to the animal from the arms going down the trachea, as the thread of screw wore away by constant turning.

This great defect has been entirely obviated by Mr. Huish, who has devised a means of pressing a flange out anteriorly on to the disc, thus practically making the disc and arm one piece.

By making the top arm or wing much smaller than the bottom one, he has been able to elongate the collar as shown in the engraving and the inconvenience arising from granulations getting in between the V formed by Field's pattern is prevented.

The tube is fitted with a plug and thumb-screw catches.

It has been provisionally protected by Mr. Huish.

Yours faithfully,

SEAWARD LONGHURST, F.R.C.V.S.

A CORRECTION.

THE name "Plant" was accidentally inserted, when it should have been Brand, who obtained his Fellowship Degree at the recent examination. Mr. J. Brand, F.R.C.V.S., graduated in 1890, at the New Veterinary College, Edinburgh, and is now conducting a most successful practice in Leeds.

Communications, Books, Journals, etc., Received.

The Lancet; Land and Water; Veterinarian; Veterinary Record; American Veterinary Review; Journal of Comparative Medicine; Australian Farm and Home; Results of Use of Tuberculin, by James Wilson, M.A.; Bacteriological Diagnosis, by St. John Reid; Country Life Illustrated; Recueil de Médecine Vétérinaire (Alfort); La Presse Vétérinaire (Paris); L'Echo Vétérinaire (Liége); Annales de Médecine Vétérinaire (Brussels); Berliner Thierärztliche Wochenschrift (Berlin); La Clinica Veterinaria (Milan); Il Nuovo Ercolani (Pisa); La Revista Veterinaria (Buenos Aires); Deutsche Thierärztliche Wochenschrift (Hannover und Karlsruhe); Archivos de Medicina Lisbon: José Bastos).